NEWS IPC8 For general information regarding STN implementation of IPC 8 NEWS X25 X.25 communication option no longer available

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FILE 'HOME' ENTERED AT 18:14:58 ON 22 DEC 2006

=> fil reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 18:15:14 ON 22 DEC 2006
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STRUCTURE FILE UPDATES: 21 DEC 2006 HIGHEST RN 916201-86-0 DICTIONARY FILE UPDATES: 21 DEC 2006 HIGHEST RN 916201-86-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

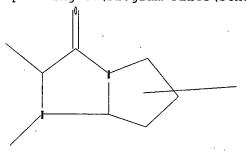
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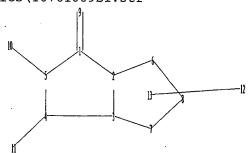
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> Uploading C:\Program Files\Stnexp\Queries\10761889B1.str





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ring nodes :

1 2 3 4 5 6 7 8

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1-2 1-5 2-3 2-6 3-4 3-7 4-5 6-8 7-8

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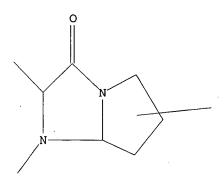
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Match level :

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L1 STRUCTURE UPLOADED

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Structure attributes must be viewed using STN Express query preparation.

=> 11 sam sss

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100.0% PROCESSED 20 ITERATIONS 8 ANSWERS

SEARCH TIME: 00.00.01

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PROJECTED ITERATIONS: BATCH **COMPLETE**

PROJECTED ANSWERS: 132 TO 668

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COST IN U.S. DOLLARS

FULL ESTIMATED COST

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FILE 'CAPLUS' ENTERED AT 18:16:31 ON 22 DEC 2006
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L4

14 L3

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L4 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:133079 CAPLUS

DN 138:188071

TI Peptidomimetics of biologically active metallopeptides

IN Sharma, Shubh D.; Shi, Yiqun; Rajpurohit, Ramesh; Wu, Zhijun

PA Palatin Technologies, Inc., USA

SO PCT Int. Appl., 168 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 8

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OS MARPAT 138:188071 GI

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AB The invention relates to a method of deriving a peptidomimetic of a biol. active metallopeptide. The peptidomimetic contains at least one non-peptide ring structure and at least two amino acid-related elements. The invention further relates to peptidomimetics with a template space heterocyclic ring structure, including 5-, 6- and 8-membered and 5-5 and 6-5 bicyclic fused ring structure melanocortin receptor-specific peptidomimetics. The examples describe the synthesis of pyrrolidines, 2-piperazinones [e.g., I [R = BuCH2CH2CO-Ser(Bzl)-D-Phe(2-Cl)]], hexahydropyrrolo[1,2-a]pyrazin-4-ones, hexahydropyrrolo[1,2-a]imidazol-3-ones, 1,4-benzodiazepines, and piperazines. Competitive inhibition testing of compound I against α-MSH yielded the following results at 1 μM: melanocortin-1 receptor (MC1-R) 96%, MC3-R 51%, MC4-R 99%, and MC5-R 82%.

Ι

IT 497935-48-5P 497935-49-6P 497935-50-9P 497935-51-0P 497935-52-1P 497935-53-2P 497935-54-3P 497935-55-4P 497935-56-5P 497935-57-6P 497935-58-7P 497935-59-8P

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              497935-48-5 CAPLUS
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                 [(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-
                 chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI)
                 INDEX NAME)
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Absolute stereochemistry.

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CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)
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RN

 $\begin{array}{lll} 497935-50-9 & \text{CAPLUS} \\ \text{Heptanamide, N-[(1S)-2-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-} \end{array}$ CN [(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[<math>(4-naphthalenyloxy)methyl]chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN497935-51-0 CAPLUS

Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-CN [(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) INDEX NAME)

RN 497935-52-1 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-53-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

RN497935-54-3 CAPLUS

2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-CN 5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyloxy]-1-[(2-naphthalenyloxy)methyloxy]-1-[(chlorophenyl)methyl]-2-oxoethyl]-5-phenyl-, (2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

 $\begin{array}{lll} 497935-55-4 & \text{CAPLUS} \\ \text{Heptanamide, N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-(4-aminobut$ CN [(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyloxy]-1-[(2-naphthalenyloxy)methyloxy]chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]=thyl]- (9CI) (CA INDEX NAME)

RN 497935-56-5 CAPLUS

CN 1-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (1S)- (9CI) (CA INDEX NAME)

"Absolute stereochemistry.

RN 497935-57-6 CAPLUS

CN 1-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (1R)- (9CI) (CA INDEX NAME)

RN 497935-58-7 CAPLUS

CN 2-Naphthalenecarboxamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-59-8 CAPLUS

CN 1H-Indene-2-acetamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-, (αS)- (9CI) (CA INDEX NAME)

RN 497935-60-1 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(2-naphthalenyloxy)-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-61-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-phenoxy-, (2S,4S)- (9CI) (CA INDEX NAME)

RN 497935-62-3 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-63-4 CAPLUS

CN 1H-Indene-2-carboxamide, 2-amino-N-[(1S)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-(9CI) (CA INDEX NAME)

RN 497935-64-5 CAPLUS

CN 1H-Indole-2-carboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-65-6 CAPLUS

CN 1H-Indene-1-carboxamide, 1-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-(9CI) (CA INDEX NAME)

RN 497935-66-7 CAPLUS

CN lH-Imidazole-4-propanamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-67-8 CAPLUS

CN

3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

RN 497935-68-9 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-69-0 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-70-3 CAPLUS

CN Heptanamide, 7-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-71-4 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-3-(2-chlorophenyl)-1-oxo-2-[(phenylmethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-72-5 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-3-(4-chlorophenyl)-1-oxopropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-73-6 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-3-(2-

chlorophenyl)-1-oxopropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

497935-74-7 CAPLUS 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-1-oxo-3phenylpropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

497935-75-8 CAPLUS RN

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4aminobutyl)hexahydro-3-oxo-5-(phenoxymethyl)-1H-pyrrolo[1,2-a]imidazol-1y1]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)-(9CI) (CA INDEX NAME)

RN 497935-76-9 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-77-0 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

RN 497935-78-1 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-79-2 CAPLUS

CN Heptanamide, 7-amino-N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

RN 497935-80-5 CAPLUS

CN lH-Imidazole-4-propanamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-81-6 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

RN 497935-82-7 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-83-8 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-84-9 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-5-phenyl-, (2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-85-0 CAPLUS

CN Butanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN497935-86-1 CAPLUS

CN 2-Piperidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-lH-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-4-(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

497935-87-2 CAPLUS Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]chlorophenyl)methyl]-2-oxoethyl]-3-(2-naphthalenyloxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-88-3 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-phenoxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-89-4 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(4-chlorophenoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-90-7 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(2-chlorophenoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:961972 CAPLUS

DN 143:248665

TI Preparation of bicyclic melanocortin-specific compounds

IN Sharma, Shubh D.; Shi, Yi-Qun; Wu, Zhijun; Rajpurohit, Ramesh

PA Palatin Technologies, Inc., USA

SO PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2005079574 A1 20050901 WO 2004-US1505 20040121

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

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CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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OS MARPAT 143:248665

GI

The invention discloses melanocortin receptor (MC-R)-specific bicyclic compds. having the structure I [RI is L1-J, where L1 is a linker and J is a ring structure; R2 is (CH2)1-6-W, where W is a heteroarom. unit with at least one cationic center, hydrogen bond donor or acceptor in which at least one atom is N; R3 is L2-Q, where L2 is a linker and Q is (un)substituted Ph or naphthyl: X = CH2 or CO; X1 is null or CH2], or stereoisomers or pharmaceutically-acceptable salts, which are agonists, antagonists or mixed agonists and antagonists at one or more melanocortin receptors and have utility in the treatment of melanocortin receptor-related disorders and conditions. Thus, pyrroloimidazolyl peptide II was prepared and assayed for competitive binding against 128I-NDP- α -MSH (90, 14, 81 and 86% inhibition for MC1-R, MC3-R, MC4-R and MC5-R, resp., at 1 μ M).

ΙT 497935-48-5P 497935-49-6P 497935-50-9P 497935-51-0P 497935-52-1P 497935-53-2P 497935-54-3P 497935-55-4P 497935-56-5P 497935-57-6P 497935-58-7P 497935-59-8P 497935-60-1P 497935-61-2P 497935-62-3P 497935-63-4P 497935-64-5P 497935-65-6P 497935-66-7P 497935-67-8P 497935-68-9P 497935-69-0P 497935-70-3P 497935-71-4P 497935-72-5P 497935-73-6P 497935-74-7P 497935-75-8P 497935-76-9P 497935-77-0P 497935-78-1P 497935-79-2P 497935-80-5P 497935-81-6P 497935-82-7P 497935-83-8P 497935-84-9P 497935-85-0P 497935-86-1P 497935-87-2P 497935-88-3P 497935-89-4P 497935-90-7P 728039-00-7P 728039-01-8P

728039-02-9P 728039-03-0P 728039-04-1P 728039-05-2P 728039-06-3P 728039-07-4P 728039-08-5P 728039-09-6P 728039-10-9P 728039-11-0P 728039-12-1P 728039-13-2P 728039-14-3P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (bicyclic melanocortin receptor-specific compds. for treating eating disorders and sexual dysfunction) RN 497935-48-5 CAPLUS Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-CN [(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxchlorophenyl) methy $\bar{1}$] -2-oxoethyl] -3-(phenylmethoxy) -, (2S) - (9CI) (CA) INDEX NAME)

Absolute stereochemistry.

RN 497935-49-6 CAPLUS
CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

RN 497935-50-9 CAPLUS

CN Heptanamide, N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-51-0 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-52-1 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

RN 497935-53-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c}
H & O & C1 \\
N & R & O \\
R & (CH_2)_4 & N & R \\
O & N & R
\end{array}$$

RN 497935-54-3 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-5-phenyl-, (2S,5R)- (9CI) (CA INDEX NAME)

RN

 $\begin{array}{lll} 497935-55-4 & \text{CAPLUS} \\ \text{Heptanamide, N-[(1S)-2-[((1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)) hexahydro-5-level} \end{array}$ CN [(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyl]-1-[(2-naphthalenyloxy)methyloxy]methyll[(2-naphthalenyloxy)methyllchlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN497935-56-5 CAPLUS

CN 1-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (1S)- (9CI) (CA INDEX NAME)

RN 497935-57-6 CAPLUS

CN 1-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (1R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-58-7 CAPLUS

CN 2-Naphthalenecarboxamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-(9CI) (CA INDEX NAME)

RN 497935-59-8 CAPLUS

CN 1H-Indene-2-acetamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-60-1 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(2-naphthalenyloxy)-, (2S,4S)- (9CI) (CA INDEX NAME)

RN 497935-61-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-phenoxy-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-62-3 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3R)- (9CI) (CA INDEX NAME)

RN 497935-63-4 CAPLUS

CN 1H-Indene-2-carboxamide, 2-amino-N-[(1S)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-64-5 CAPLUS

CN lH-Indole-2-carboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-65-6 CAPLUS

CN 1H-Indene-1-carboxamide, 1-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-66-7 CAPLUS

CN 1H-Imidazole-4-propanamide, α -amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, (α S)- (9CI) (CA INDEX NAME)

RN 497935-67-8 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-68-9 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN497935-69-0 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

497935-70-3 CAPLUS Heptanamide, 7-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-CN [(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2chlorophenyl)methyl]-2-oxoethyl]- (9CI) (CA INDEX NAME)

RN 497935-71-4 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-3-(2-chlorophenyl)-1-oxo-2-[(phenylmethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-72-5 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-3-(4-chlorophenyl)-1-oxopropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-73-6 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-3-(2-chlorophenyl)-1-oxopropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI)

Absolute stereochemistry.

RN 497935-74-7 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-75-8 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-(phenoxymethyl)-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)-(9CI) (CA INDEX NAME)

RN 497935-76-9 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-77-0 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-78-1 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-79-2 CAPLUS

CN Heptanamide, 7-amino-N-[(1'S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-80-5 CAPLUS
CN 1H-Imidazole-4-propanamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, (αS)- (9CI) (CA INDEX NAME)

RN 497935-81-6 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-82-7 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

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497935-83-8 CAPLUS Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-CN [(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

497935-84-9 CAPLUS RNCN

2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-5-phenyl-, (2S,5R)- (9CI) (CA INDEX NAME)

RN 497935-85-0 CAPLUS

CN Butanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-86-1 CAPLUS

CN 2-Piperidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-4-(phenylmethoxy)- (9CI) (CA INDEX NAME)

RN 497935-87-2 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(2-naphthalenyloxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-88-3 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-phenoxy-, (2S)- (9CI) (CA INDEX NAME)

RN

497935-89-4 CAPLUS Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-CN [(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalenyloxy)methyloxy]chlorophenyl)methyl]-2-oxoethyl]-3-(4-chlorophenoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-90-7 CAPLUS

Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-CN[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4chlorophenyl)methyl]-2-oxoethyl]-3-(2-chlorophenoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 728039-00-7 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(4-chlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-01-8 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(2,4-dichlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

$$\begin{array}{c} NH_2 \\ NH_2 \\ NH_3 \\ NH_4 \\ NH_6 \\ NH_7 \\ NH_8 \\ NH$$

RN 728039-02-9 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(2,4-difluorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-03-0 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(4-chlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$H_2N$$
 H_1
 H_2N
 H_3
 H_4
 H_4
 H_5
 H_5
 H_6
 H_7
 H_8
 H_9
 $H_$

RN 728039-04-1 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(3-chlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$NH_2$$
 NH_2
 H_2N
 NH_1
 $C1$
 R
 R
 R
 R

RN 728039-05-2 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(2-chlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-06-3 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(2,4-dichlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-07-4 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(3,4-dichlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

C1
$$H_2N$$
 H_1
 H_2N
 H_3
 H_4
 H_4
 H_5
 H_5
 H_6
 H_7
 H_8
 H_8

RN 728039-08-5 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-

[(2R)-2-amino-1-oxo-3-[4-(trifluoromethyl)phenyl]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-09-6 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-[(2R)-2-amino-3-(4-methylphenyl)-1-oxopropyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-10-9 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-11-0 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(4-cyanophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

RN 728039-12-1 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-[(2R)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-13-2 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-[[(3S,4R)-4-(4-chlorophenyl)-3-pyrrolidinyl]carbonyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-14-3 CAPLUS

CN Guanidine, [3-[(2S,5R,7aS)-1-[(2R)-2-amino-3-(2,4-dichlorophenyl)propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-2-yl]propyl]- (9CI) (CA INDEX NAME)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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TI Naphthalene-containing melanocortin receptor-specific small molecule

IN Sharma, Shubh D.; Shadiack, Annette M.; Shi, Yi-Qun; Wu, Zhijun;
Rajpurohit, Ramesh; Burris, Kevin; Purma, Papireddy

PA Palatin Technologies, Inc., USA

SO U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. Ser. No. 837,519. CODEN: USXXCO

DT Patent

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MARPAT 143:20084
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A method of modulating energy homeostasis in a mammal without eliciting a AΒ sexual response by administration of a therapeutically effective amount of a pharmaceutical composition including a melanocortin receptor compound of the formula I (where R1 = a bond or a linker unit including from one to six backbone atoms and an unsubstituted naphthalene group, L = aconformationally restricted ring system consisting of a single ring or bicyclic nonarom. carbocyclic ring system, etc., R2= -(CH2)4NH2,-(CH2) 3NHC (NH2) = NH, etc., R3 = L-or D-isomer of Phe, Phe(4-F), Phe(4-Br), etc., and Rx = H, C-C6 aliphatic linear chain, etc.).

IT 497935-81-6P 497935-84-9P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(naphthalene-containing melanocortin receptor-specific small mol.)

RN 497935-81-6 CAPLUS

3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-CN [(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-84-9 CAPLUS

2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-CN [(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-5-phenyl-, (2S,5R)- (9CI) (CA INDEX NAME)

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ANSWER 3 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN
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      Palatin Technologies, Inc., USA
      U.S. Pat. Appl. Publ., 42 pp., Cont.-in-part of WO 2003 13,571.
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OS MARPAT 141:151030 GI

AΒ The invention discloses melanocortin receptor-specific bicyclic compds. having the structure I (R1 = L1-J wherein L1 is a linker and J is a ring structure selected form the group consisting of substituted or unsubstituted aromatic carboxylic rings, substituted or unsubstituted non-aromatic carboxylic rings, substituted or unsubstituted aromatic fused carbobicyclic ring groups, etc.; R2 = (CH2)y-W wherein W is a heteroarom. unit with at least one cationic center, hydrogen bond donor or hydrogen bond acceptor wherein at least one atom is N; R3 = L2-Q wherein L2 is a linker and Q is an aromatic carboxylic ring selected from the group consisting of Ph, substituted Ph, naphthyl and substituted naphthyl: X = CH2 or C=O and z is 0 or 1), and stereoisomer and pharmaceutically acceptable salts thereof, which are agonists, antagonists or mixed agonists and antagonists at one or more melanocortin receptors, and having utility in the treatment of melanocortin receptor-related disorders and conditions. Pharmaceutical compns. containing a compound of structure I and methods relating to the use thereof for treating eating disorders and sexual dysfunction are also disclosed.

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Absolute stereochemistry.

RN 497935-49-6 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

CN Heptanamide, N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-51-0 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-52-1 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

RN 497935-53-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c}
H & O & C1 \\
N & R & O \\
R & (CH_2)_4 & N & R \\
O & N & R
\end{array}$$

RN 497935-54-3 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-5-phenyl-, (2S,5R)- (9CI) (CA INDEX NAME)

RN 497935-55-4 CAPLUS

CN Heptanamide, N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-56-5 CAPLUS

CN 1-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (1S)- (9CI) (CA INDEX NAME)

RN 497935-57-6 CAPLUS

CN 1-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (1R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-58-7 CAPLUS

CN 2-Naphthalenecarboxamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-(9CI) (CA INDEX NAME)

RN 497935-59-8 CAPLUS

CN 1H-Indene-2-acetamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-60-1 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(2-naphthalenyloxy)-, (2S,4S)- (9CI) (CA INDEX NAME)

RN 497935-61-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-phenoxy-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-62-3 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3R)- (9CI) (CA INDEX NAME)

RN 497935-63-4 CAPLUS

CN 1H-Indene-2-carboxamide, 2-amino-N-[(1S)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-64-5 CAPLUS

CN 1H-Indole-2-carboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-65-6 CAPLUS

CN 1H-Indene-1-carboxamide, 1-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-66-7 CAPLUS

CN 1H-Imidazole-4-propanamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, (αS)- (9CI) (CA INDEX NAME)

RN 497935-67-8 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-68-9 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-69-0 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-70-3 CAPLUS

CN Heptanamide, 7-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]- (9CI) (CA INDEX NAME)

RN 497935-71-4 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-3-(2-chlorophenyl)-1-oxo-2-[(phenylmethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-72-5 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-3-(4-chlorophenyl)-1-oxopropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-73-6 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-3-(2-chlorophenyl)-1-oxopropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI)

Absolute stereochemistry.

RN 497935-74-7 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-75-8 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-(phenoxymethyl)-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)-(9CI) (CA INDEX NAME)

RN 497935-76-9 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

. Absolute stereochemistry.

RN 497935-77-0 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-78-1 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-79-2 CAPLUS
CN Heptanamide, 7-amino-N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-80-5 CAPLUS

CN lH-Imidazole-4-propanamide, α -amino-N-[(lR)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, (α S)- (9CI) (CA INDEX NAME)

RN 497935-81-6 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-82-7 CAPLUS

CN

2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

RN 497935-83-8 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-84-9 CAPLUS CN 2-Pyrrolidinecarbox

2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-5-phenyl-, (2S,5R)- (9CI) (CA INDEX NAME)

RN 497935-85-0 CAPLUS

CN Butanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-4-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-86-1 CAPLUS

CN 2-Piperidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)- (9CI) (CA INDEX NAME)

RN 497935-87-2 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(2-naphthalenyloxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-88-3 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-phenoxy-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-89-4 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(4-chlorophenoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

C1

$$O$$
 R
 H
 H
 H
 H
 NH_2
 NH_2

RN 497935-90-7 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(2-chlorophenoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 728039-00-7 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(4-chlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c} C1 \\ HN \\ H2N \\ \end{array} \begin{array}{c} NH2 \\ R \\ \\ N \\ \end{array} \begin{array}{c} NH2 \\ R \\ \\ N \\ \end{array} \begin{array}{c} R \\ \\ R \\ \\ N \\ \end{array} \begin{array}{c} R \\ \\ R \\ \\ \end{array} \begin{array}{c} NH2 \\ \\ R \\ \\ \end{array} \begin{array}{c} NH2 \\ \\ NH2 \\ \end{array} \begin{array}$$

RN 728039-01-8 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(2,4-dichlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

RN 728039-02-9 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(2,4-difluorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-03-0 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(4-chlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-04-1 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(3-chlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$H_2N$$
 H_1
 H_2N
 H_2
 H_3
 H_4
 H_4
 H_5
 H_7
 $H_$

RN 728039-05-2 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(2-chlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$H_2N$$
 H_2
 H_2N
 H
 H
 $C1$
 R
 R
 R
 R

RN 728039-06-3 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(2,4-dichlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-07-4 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(3,4-dichlorophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-08-5 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-

[(2R)-2-amino-1-oxo-3-[4-(trifluoromethyl)phenyl]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-09-6 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1[(2R)-2-amino-3-(4-methylphenyl)-1-oxopropyl]hexahydro-5-(2naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-10-9 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-11-0 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 1-[(2R)-2-amino-3-(4-cyanophenyl)-1-oxopropyl]-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

RN 728039-12-1 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-[(2R)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-13-2 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-[3-[(aminoiminomethyl)amino]propyl]-1-[[(3S,4R)-4-(4-chlorophenyl)-3-pyrrolidinyl]carbonyl]hexahydro-5-(2-naphthalenylmethyl)-, (2S,5R,7aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 728039-14-3 CAPLUS

CN Guanidine, [3-[(2S,5R,7aS)-1-[(2R)-2-amino-3-(2,4-dichlorophenyl)propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-2-yl]propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} NH_2 \\ NH_2 \\ NH_3 \\ NH_4 \\ NH_5 \\ NH_6 \\ NH_7 \\ NH_8 \\ NH$$

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AΒ The invention relates to a method of deriving a peptidomimetic of a biol. active metallopeptide. The peptidomimetic contains at least one non-peptide ring structure and at least two amino acid-related elements. The invention further relates to peptidomimetics with a template space heterocyclic ring structure, including 5-, 6- and 8-membered and 5-5 and 6-5 bicyclic fused ring structure melanocortin receptor-specific peptidomimetics. The examples describe the synthesis of pyrrolidines, 2-piperazinones [e.g., I [R = BuCH2CH2CO-Ser(Bzl)-D-Phe(2-Cl)]], hexahydropyrrolo[1,2-a]pyrazin-4-ones, hexahydropyrrolo[1,2-a]imidazol-3ones, 1,4-benzodiazepines, and piperazines. Competitive inhibition testing of compound I against $\alpha\text{-MSH}$ yielded the following results at 1 μM: melanocortin-1 receptor (MC1-R) 96%, MC3-R 51%, MC4-R 99%, and MC5-R 82%.

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(peptidomimetics of biol. active metallopeptides) 497935-48-5 CAPLUS

Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)][(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyl]-1-[(4-naphthalenyloxy)methyloxy]-1-[(4-naphthalen chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-49-6 CAPLUS

CN 3-Isoquinolinecarboxamide, N-['(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-50-9 CAPLUS

CN Heptanamide, N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

RN 497935-51-0 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-52-1 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

RN 497935-53-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c}
H & O & C1 \\
N & R & O \\
R & (CH_2)_4 & N & R \\
O & N & R
\end{array}$$

RN 497935-54-3 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2s,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-5-phenyl-, (2s,5R)- (9CI) (CA INDEX NAME)

RN 497935-55-4 CAPLUS
CN Heptanamide, N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-

[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-

[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-56-5 CAPLUS

CN 1-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (1S)- (9CI) (CA INDEX NAME)

RN 497935-57-6 CAPLUS

CN 1-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (1R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-58-7 CAPLUS

CN 2-Naphthalenecarboxamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-(9CI) (CA INDEX NAME)

RN 497935-59-8 CAPLUS

CN lH-Indene-2-acetamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-lH-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-60-1 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(2-naphthalenyloxy)-, (2S,4S)- (9CI) (CA INDEX NAME)

RN 497935-61-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-phenoxy-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-62-3 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3R)- (9CI) (CA INDEX NAME)

RN 497935-63-4 CAPLUS

CN 1H-Indene-2-carboxamide, 2-amino-N-[(1S)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-64-5 CAPLUS

CN 1H-Indole-2-carboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-65-6 CAPLUS

CN 1H-Indene-1-carboxamide, 1-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-2,3-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-66-7 CAPLUS

CN 1H-Imidazole-4-propanamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, (αS)- (9CI) (CA INDEX NAME)

RN 497935-67-8 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-68-9 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-69-0 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-70-3 CAPLUS

CN Heptanamide, 7-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2-chlorophenyl)methyl]-2-oxoethyl]- (9CI) (CA INDEX NAME)

$$H_2N$$
 $(CH_2)_{6}$
 NH
 $C1$
 R
 R
 R

RN 497935-71-4 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-3-(2-chlorophenyl)-1-oxo-2-[(phenylmethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497.935-72-5 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-3-(4-chlorophenyl)-1-oxopropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-73-6 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-3-(2-chlorophenyl)-1-oxopropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI)

Absolute stereochemistry.

RN 497935-74-7 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-(phenoxymethyl)-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-75-8 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-(phenoxymethyl)-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)-(9CI) (CA INDEX NAME)

RN 497935-76-9 CAPLUS

CN 3H-Pyrrolo[1,2-a]imidazol-3-one, 2-(4-aminobutyl)-1-[(2R)-2-amino-1-oxo-3-phenylpropyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-, (2S,5R,7aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-77-0 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CAINDEX NAME)

Absolute stereochemistry.

RN 497935-78-1 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-79-2 CAPLUS
CN Heptanamide, 7-amino-N-[(1S)-2-[[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-3-oxo-5-[[(5,6,7,8-tetrahydro-2-naphthalenyl)oxy]methyl]-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]amino]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-80-5 CAPLUS

CN 1H-Imidazole-4-propanamide, α-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, (αS)- (9CI) (CA INDEX NAME)

RN 497935-81-6 CAPLUS

CN 3-Isoquinolinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-1,2,3,4-tetrahydro-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-82-7 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)-, (2S,4R)- (9CI) (CA INDEX NAME)

RN 497935-83-8 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-3-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-84-9 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-5-phenyl-, (2S,5R)- (9CI) (CA INDEX NAME)

RN 497935-85-0 CAPLUS

CN Butanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2oxoethyl]-4-(phenylmethoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-86-1 CAPLUS

CN 2-Piperidinecarboxamide, N-[(1R)-2-[(2S,5R,7aR)-2-[3-[(aminoiminomethyl)amino]propyl]hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(2,4-dichlorophenyl)methyl]-2-oxoethyl]-4-(phenylmethoxy)- (9CI) (CA INDEX NAME)

RN 497935-87-2 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(2-naphthalenyloxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-88-3 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-phenoxy-, (2S)- (9CI) (CA INDEX NAME)

RN 497935-89-4 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(4-chlorophenoxy)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 497935-90-7 CAPLUS

CN Propanamide, 2-amino-N-[(1R)-2-[(2S,5R,7aR)-2-(4-aminobutyl)hexahydro-5-[(2-naphthalenyloxy)methyl]-3-oxo-1H-pyrrolo[1,2-a]imidazol-1-yl]-1-[(4-chlorophenyl)methyl]-2-oxoethyl]-3-(2-chlorophenoxy)-, (2S)- (9CI) (CA INDEX NAME)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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AN 2002:962180 CAPLUS

DN 138:170390

TI Total Synthesis of (-)-Fumiquinazolines A, B, C, E, H, and I. Approaches to the Synthesis of Fiscalin A

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CS Department of Chemistry, Brandeis University, Waltham, MA, 02454-9110, USA

SO Journal of Organic Chemistry (2003), 68(2), 545-563 CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 138:170390

GΙ

AB The first syntheses of (-)-fumiquinazolines A, B, and I, which proceed in 14 steps from protected tryptophan, anthranilic acid, leucine, and alanine in 7% overall yield, are described. Tricycle I (R = Me, CH2CHMe2) was formed by a palladium-catalyzed cyclization. Oxidation of I (R = Me) with a saccharine-derived oxaziridine for fumiquinazolines A and B and oxidation of I (r = CH2CHMe2) with dimethyldioxirane for fumiquinazoline I selectively formed the appropriate imidazoindolone stereoisomers. Application of the Ganesan-Mazurkiewicz cyclization completed the syntheses. Efficient 14-step syntheses of (-)-fumiquinazolines C and E and a 15-step synthesis of (-)-fumiquinazoline H using FmocNHCH(CH2SePh)CO2H as a dehydroalanine

precursor that spontaneously eliminated benzeneselenol without oxidation under the cyclization conditions are also reported. Model II for fiscalin A with the H and OH anti to each other has been prepared, but the procedure that worked for the model failed with the fully functionalized side chain: 210702-36-6

RL: RCT (Reactant); RACT (Reactant or reagent) (total synthesis of (-)-fumiquinazolines A, B, C, E, H, and I and fiscalin A via Ganesan-Mazurkiewicz cyclization)

RN 210702-36-6 CAPLUS

IT

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-2,9-dimethyl-3-oxo-, phenylmethyl ester, (2S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

316828-38-3P 316828-43-0P 316828-44-1P IT 316828-45-2P 316828-53-2P 316828-54-3P 316828-55-4P 316828-57-6P 422319-31-1P 422319-35-5P.422319-37-7P 422319-39-9P 422319-40-2P 422319-50-4P 496962-01-7P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT. (Reactant or reagent) (total synthesis of (-)-fumiquinazolines A, B, C, E, H, and I and fiscalin A via Ganesan-Mazurkiewicz cyclization) RN 316828-38-3 CAPLUS CN 1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9amethoxy-2-(2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, $(\alpha R, 2S, 9R)$ -

Absolute stereochemistry.

(9CI) (CA INDEX NAME)

RN 316828-43-0 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-

(2-methylpropyl)-3-oxo-9-[[(1S,4R)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9R,9aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 316828-44-1 CAPLUS

CN lH-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-2-methyl-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (α R,2S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 316828-45-2 CAPLUS

CN lH-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-2-methyl-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (α R,2S,9R)- (9CI) (CA INDEX NAME)

RN 316828-53-2 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1S,4R)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 316828-54-3 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1R,4R)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

RN 316828-55-4 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1S,4S)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 316828-57-6 CAPLUS

CN lH-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1R,4S)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

RN 422319-31-1 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(4R)-1,3,4,6-tetrahydro-1-methylene-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 422319-35-5 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1R,4R)-1,3,4,6-tetrahydro-1-methoxy-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)- (9CI) (CA INDEX NAME)

RN 422319-37-7 CAPLUS

CN 1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2methyl-3-oxo-1-[(phenylmethoxy)carbonyl]-α-[[(2,2,2trichloroethoxy)carbonyl]amino]-, methyl ester, (αR,2S,9S,9aR)(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 422319-39-9 CAPLUS

CN lH-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (α R,2S,9R,9aS)-(9CI) (CA INDEX NAME)

RN 422319-40-2 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(4R)-1,3,4,6-tetrahydro-1-methylene-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9R,9aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 422319-50-4 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[[(4R)-1,3,4,6-tetrahydro-1-methylene-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9R,9aS)- (9CI) (CA INDEX NAME)

RN 496962-01-7 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9a-methoxy-2,9-dimethyl-3-oxo-9-[(triethylsilyl)oxy]-, phenylmethyl ester, (2S,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 316828-37-2 CAPLUS

CN 1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9amethoxy-2-(2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]-α[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (αR,2S,9S)(9CI) (CA INDEX NAME)

RN 422319-55-9 CAPLUS

CN lH-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (α R,2S,9R,9aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 496962-04-0 CAPLUS

CN lH-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9a-methoxy-2-methyl-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-9-[(triethylsilyl)oxy]-, methyl ester, (α R,2S,9S)- (9CI) (CA INDEX NAME)

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:177405 CAPLUS

DN 136:369882

TI Total Syntheses of (-)-Fumiquinazolines C, E, and H

AU Snider, Barry B.; Zeng, Hongbo

CS Department of Chemistry, Brandeis University, Waltham, MA, 02454-9110, USA

SO Organic Letters (2002), 4(7), 1087-1090 CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

OS CASREACT 136:369882

AB Total syntheses of the heptacyclic fumiquinazolines C and H have been accomplished efficiently using FmocNHCH(CH2SePh)CO2H as the precursor for the requisite dehydrofumiquinazoline.

IT 422319-31-1P 422319-35-5P 422319-37-7P

422319-39-9P 422319-40-2P 422319-50-4P

422319-55-9P 422319-66-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(total syntheses of (-)-fumiguinazolines C, E, and H)

RN 422319-31-1 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(4R)-1,3,4,6-tetrahydro-1-methylene-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

RN 422319-35-5 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1R,4R)-1,3,4,6-tetrahydro-1-methoxy-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 422319-37-7 CAPLUS

CN 1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2methyl-3-oxo-1-[(phenylmethoxy)carbonyl]-α-[[(2,2,2trichloroethoxy)carbonyl]amino]-, methyl ester, (αR,2S,9S,9aR)(9CI) (CA INDEX NAME)

RN 422319-39-9 CAPLUS

CN 1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2methyl-3-oxo-1-[(phenylmethoxy)carbonyl]-α-[[(2,2,2trichloroethoxy)carbonyl]amino]-, methyl ester, (αR,2S,9R,9aS)(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 422319-40-2 CAPLUS

CN lH-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(4R)-1,3,4,6-tetrahydro-1-methylene-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9R,9aS)-(9CI) (CA INDEX NAME)

RN 422319-50-4 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[[(4R)-1,3,4,6-tetrahydro-1-methylene-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9R,9aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 422319-55-9 CAPLUS

CN 1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2(2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]-α-[[(2,2,2trichloroethoxy)carbonyl]amino]-, methyl ester, (αR,2S,9R,9aS)(9CI) (CA INDEX NAME)

RN 422319-66-2 CAPLUS

CN 1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2- (2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (α R,2S,9S,9aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REICHT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L4 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2000:818613 CAPLUS
- DN 134:86414
- TI Total Syntheses of (-)-Fumiquinazolines A, B, and I
- AU Snider, Barry B.; Zeng, Hongbo
- CS Department of Chemistry MS015, Brandeis University, Waltham, MA, 02454-9110, USA
- SO Organic Letters (2000), 2(25), 4103-4106 CODEN: ORLEF7; ISSN: 1523-7060
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 134:86414

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

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The first total syntheses of (-)-fumiquinazolines A (I \alpha-Me,
AΒ
     \alpha-OH, R = \beta-Me), B (I \beta-Me, \alpha-OH, R = \beta-Me),
     and I (I \alpha-Me, \beta-OH, R = \beta-i-Bu) have been accomplished
     efficiently using the Pd-catalyzed cyclization of an iodoindole carbamate
     II (R = Me, i-Bu) to construct the imidazoindolone moiety III (R = Me, i-Bu)
     i-Bu) and the dehydrative cyclization of a diamide followed by
     rearrangement through an amidine to construct the quinazolone moiety.
IT
     316828-38-3P 316828-43-0P 316828-44-1P
     316828-45-2P 316828-53-2P 316828-54-3P
     316828-55-4P 316828-57-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
         (total syntheses of (-)-fumiquinazolines A, B, and I)
RN
     316828-38-3 CAPLUS
     1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-
CN
     methoxy-2-(2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]-\alpha-
     [[(2,2,2-trichloroethoxy) carbonyl]amino]-, methyl ester, (\alpha R,2S,9R)-
     (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

RN 316828-43-0 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2(2-methylpropyl)-3-oxo-9-[[(1S,4R)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester,
(2S,9R,9aS)- (9CI) (CA INDEX NAME)

RN 316828-44-1 CAPLUS

CN lH-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-2-methyl-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (α R,2S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 316828-45-2 CAPLUS

CN lH-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-2-methyl-3-oxo-1-[(phenylmethoxy)carbonyl]- α -[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (α R,2S,9R)- (9CI) (CA INDEX NAME)

RN 316828-53-2 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1S,4R)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 316828-54-3 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1R,4R)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

RN 316828-55-4 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1S,4S)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 316828-57-6 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-methyl-3-oxo-9-[[(1R,4S)-1,3,4,6-tetrahydro-1-methyl-3,6-dioxo-2H-pyrazino[2,1-b]quinazolin-4-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

IT 316828-37-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (total syntheses of (-)-fumiquinazolines A, B, and I)

RN 316828-37-2 CAPLUS

CN 1H-Imidazo[1,2-a]indole-9-propanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9amethoxy-2-(2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]-α[[(2,2,2-trichloroethoxy)carbonyl]amino]-, methyl ester, (αR,2S,9S)(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:411058 CAPLUS

DN 129:136341

TI Total Syntheses of (-)-Asperlicin and (-)-Asperlicin C

AU He, Feng; Foxman, Bruce M.; Snider, Barry B.

CS Department of Chemistry, Brandeis University, Waltham, MA, 02254-9110, USA

SO Journal of the American Chemical Society (1998), 120(25), 6417-6418 CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society
DT Journal
LA English
OS CASREACT 129:136341
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AΒ (-)-Asperlicin (I) was prepared from $N\alpha$ -(2,2,2trichloroethoxycarbonyl)-L-tryptophan and N-(benzyloxycarbonyl)-L-leucine via cyclization of indoloimidazole II with o-[(2,2,2trichloroethoxycarbonyl)amino]benzoic acid and cyclocondensation of benzodiazepinedione III with o-azidobenzoyl chloride. (-)-Asperlicin C (IV) was prepared via a similar cyclocondensation with o-azidobenzoyl chloride. IT 102743-51-1P 210702-36-6P 210702-37-7P 210702-38-8P 210702-40-2P 210702-50-4P 210702-56-0P 210702-57-1P 210702-58-2P 210702-60-6P 210702-62-8P 210704-04-4P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (total syntheses of (-)-asperlicin and (-)-asperlicin C) RN102743-51-1 CAPLUS CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[[(7s)-5,6,7,13-tetrahydro-5,13-tetdioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 210702-36-6 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-2,9-dimethyl-3-oxo-, phenylmethyl ester, (2S,9S)- (9CI) (CA INDEX NAME)

RN 210702-37-7 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-2,9-dimethyl-3-oxo-, phenylmethyl ester, (2S,9R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 210702-38-8 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2,9-dimethyl-3-oxo-, phenylmethyl ester, (2S,9S,9aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 210702-40-2 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2,9-dimethyl-3-oxo-, phenylmethyl ester, (2S,9R,9aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 210702-50-4 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 9-[[(7S,7aS)-5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl]methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-, phenylmethyl ester, (2S,9S,9aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 210702-56-0 CAPLUS

CN lH-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-9-methyl-2-(2-methylpropyl)-3-oxo-, phenylmethyl ester, (2S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 210702-57-1 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-9-methyl-2-(2-methylpropyl)-3-oxo-, phenylmethyl ester, (2S,9R)- (9CI) (CA INDEX NAME)

RN 210702-58-2 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9-methyl-2-(2-methylpropyl)-3-oxo-, phenylmethyl ester, (2S,9S,9aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 210702-60-6 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 9-[[(7s,7as)-5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl]methyl]-2,3,9,9a-tetrahydro-9-hydroxy-9a-methoxy-2-(2-methylpropyl)-3-oxo-, phenylmethyl ester, (2s)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 210702-62-8 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 9-[[(7S,7aS)-5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl]methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-, phenylmethyl ester, (2S,9R,9aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 210704-04-4 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-9-methyl-2-(2-methylpropyl)-3-oxo-, phenylmethyl ester, (2S,9R,9aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:104822 CAPLUS

DN 122:56541

TI Anodic amide oxidations: conformationally restricted peptide building blocks from the direct oxidation of dipeptides

AU Cornille, Fabrice; Fobian, Yvetter M.; Slomczynska, Urszula; Beusen, Denise D.; Marshall, Garland R.; Moeller, Kevin D.

CS Dep. Mol. Biol. Pharmacol., Washington Univ., St. Louis, MO, 63130, USA

SO Tetrahedron Letters (1994), 35(38), 6989-92 CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

OS CASREACT 122:56541

GΙ

BocNH
$$R^2$$
 R^2 Me $BocN$ H II

AB A pair of bicyclic lactam based conformationally restricted peptide mimetics I (R 1 = H, R2 = CO2Me; R1 = CO2Me, R2 = H) have been synthesized in good yield by the direct anodic oxidation of dipeptides Boc-L-Hse-D-Pro-OMe and Boc-L-Hse-L-Pro-OMe. Similarly, bicyclic product II was obtained in 56% overall yield in a 2-step oxidation-cyclization procedure starting with dipeptide Boc-L-Ala-L-Pro-OMe. This work highlights the simplicity of using electrochem. to construct peptide mimetics and serves to further define the nature of the substituent that are compatible with an electrochem. procedure for annulating rings into amino acid derivs.

IT 159912-49-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of conformationally restricted peptide building blocks via direct anodic oxidation and cyclization of proline-containing dipeptides)

RN 159912-49-9 CAPLUS

CN lH-Pyrrolo[1,2-a]imidazole-1,5-dicarboxylic acid, hexahydro-2-methyl-3-oxo-, l-(1,1-dimethylethyl) 5-methyl ester, [2S-(2α ,5 β ,7a β)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:46800 CAPLUS

DN 122:10558

TI Application of HMBC and HMQC-TOCSY NMR methods to assign the structures of bicyclic-peptide mimetics

AU d'Avignon, D. Andre; Hanau, Cathleen E.; Fobian, Yvette M.; Moeller, Kevin D.

CS Department of Chemistry, Washington University, St. Louis, MO, 63130, USA

SO Journal of Coordination Chemistry (1994), 32(1-3), 135-44 CODEN: JCCMBQ; ISSN: 0095-8972

DT Journal

LA English

AB The structures of representative bicyclic peptides are confirmed through the NMR methods of HMBC and HMQC-TOCSY. Complete assignment of proton and carbon resonances is afforded by these two-dimensional NMR methods. HMQC-TOCSY is especially useful for assigning spectra in mols. having extensive proton spin systems and in establishing connectivities between protonated carbons. Long-range proton-carbon connectivities obtained by HMBC confirm

structure in mols. containing heteroatoms or non-protonated carbons that interrupt proton spin systems.

IT 159326-38-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (application of HMBC and HMQC-TOCSY NMR methods to assign the structures of bicyclic peptide mimetics)

RN 159326-38-2 CAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-1,5-dicarboxylic acid, hexahydro-2-methyl-3-oxo-, 1-(1,1-dimethylethyl) 5-methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1993:473065 CAPLUS

DN 119:73065

TI Synthesis of a bicyclic γ -lactam dipeptide analog

AU Baldwin, Jack E.; Hulme, Christopher; Edwards, Alison J.; Schofield, Christopher J.; Parkes, Kevin E. B.

CS Dyson Perrins Lab., Oxford, OX1 3QY, UK

SO Tetrahedron Letters (1993), 34(10), 1665-8 CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

OS CASREACT 119:73065

GΙ

The synthesis of conformationally restrained bicyclic γ -lactam dipeptide mimetics I (R = H, Z, Rl = OH, OCH2Ph, NHCH2CHMe2; Z = PhCH2O2C), involving a diastereoselective bicyclization reaction is described. Thus, oxidative cleavage (OsO4, NaIO4) of dipeptide Z-L-Phe-L-NHCH(CO2CH2Ph)CH2CH2CH:X (II; X = CH2) gave aldehyde II (X = O) as a mixture of the free aldehyde and cyclic hemiaminal forms. Cyclization of this mixture with acid gave bicyclic lactam I (R = Z, Rl = OCH2Ph). The stereochem. at C-5 was determined by MO calcns. on models and by x-ray crystallog. of I (R = Z, Rl = OH). I exist as ca. 1:1 mixts of conformers at ambient temperature

IT 148696-59-7 148766-59-0

RL: PRP (Properties)

(conformation and steric energy of, vs. diastereomer, by MO calcns.)

RN 148696-59-7 CAPLUS

CN lH-Pyrrolo[1,2-a]imidazole-1,5-dicarboxylic acid, hexahydro-2-methyl-3-oxo-, dimethyl ester, $[2S-(2\alpha,5\beta,7a\beta)]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

RN 148766-59-0 CAPLUS

CN lH-Pyrrolo[1,2-a]imidazole-1,5-dicarboxylic acid, hexahydro-2-methyl-3-oxo-, dimethyl ester, [2S-(2α ,5 β ,7a α)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 148696-56-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, amidation, crystal structure, and conformation of, by NMR)

RN 148696-56-4 CAPLUS

CN lH-Pyrrolo[1,2-a]imidazole-1,5-dicarboxylic acid, hexahydro-3-oxo-2(phenylmethyl)-, 1-(phenylmethyl) ester, [2S-(2α,5β,7aβ)](9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 148696-57-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, deprotection, and conformation of, by NMR)

RN 148696-57-5 CAPLUS

CN 1H-Pyrrolo[1,2-a]imidazole-1-carboxylic acid, hexahydro-5-[[(2-methylpropyl)amino]carbonyl]-3-oxo-2-(phenylmethyl)-, phenylmethyl ester, $[2S-(2\alpha,5\beta,7a\beta)]-$ (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 148696-49-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, saponification, and conformation of, by NMR)

RN 148696-49-5 CAPLUS

CN lH-Pyrrolo[1,2-a]imidazole-1,5-dicarboxylic acid, hexahydro-3-oxo-2-(phenylmethyl)-, bis(phenylmethyl) ester, [2S-(2α ,5 β ,7a β)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

- L4 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1986:626158 CAPLUS
- DN 105:226158
- TI Cholecystokinin antagonists. Synthesis of asperlicin analogs with improved potency and water solubility
- AU Bock, Mark G.; DiPardo, Robert M.; Rittle, Kenneth E.; Evans, Ben E.; Freidinger, Roger M.; Veber, Daniel F.; Chang, Raymond S. L.; Chen, Tsing Bau; Keegan, Maureen E.; Lotti, Victor J.
- CS Dep. Med. Chem., Merck Sharp and Dohme Res. Lab., West Point, PA, 19486, USA
- SO Journal of Medicinal Chemistry (1986), 29(10), 1941-5 CODEN: JMCMAR; ISSN: 0022-2623
- DT Journal
- LA English
- OS CASREACT 105:226158

GΙ

AB Seventeen analogs I [R = H, COCH2CH2CO2CH2Ph, COCH2CH2CO2H; R1 = H, Ac, Et, (CH2)3Ph, protected amino acid, COCH2CH2CO2H; R2 = R3 = H; R2R3 = bond] of the selective, competitive cholecystokinin (II) antagonist asperlicin (I, R = R1 = H, R2R3 = bond) were prepared These compds. were tested as inhibitors of the binding of [125I]-II to rat pancreas and guinea pig brain receptors. I [R = R2 = R3 = H, R1 = H, Et, (CH2)3Ph] were more potent than asperlicin on the pancreatic II receptor. I [R = R2 = R3 = H, R1 = COCH2CH2CO2Na] displayed potency equivalent to asperlicin on the pancreas II receptor and showed a marked improvement in water solubility, thereby facilitating the use of this class of II antagonists in physiol. and pharmacol. studies.

IT 102743-49-7P 102743-52-2P 102743-57-7P 102996-16-7P 102996-17-8P 102996-18-9P 103241-32-3P 103241-34-5P 103303-32-8P 103303-33-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and cholecystokinin antagonist activity of)

RN 102743-49-7 CAPLUS

CN Quinazolino[3,2-a][1,4]benzodiazepine-5,13-dione, 7-[[1-acetyl-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-9-yl]methyl]-6,7-dihydro-, [2S-[2 α ,9 β ,9(R*),9a β]]- (9CI) (CA INDEX NAME)

RN 102743-52-2 CAPLUS

CN Quinazolino[3,2-a][1,4]benzodiazepine-5,13-dione, 6,7,7a,8-tetrahydro-7-[[2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1-(3-phenylpropyl)-1H-imidazo[1,2-a]indol-9-yl]methyl]-, [2S-[2 α ,9 β ,9(7R*,7aR*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102743-57-7 CAPLUS

CN Carbamic acid, [4-[[(1,1-dimethylethoxy)carbonyl]amino]-5-[9[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1Himidazo[1,2-a]indol-1-yl]-5-oxopentyl]-, phenylmethyl ester,
[2S-[1(R*),2a,9B,9(7R*,7aR*),9aB]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102996-16-7 CAPLUS

CN 3H-Imidazo[1,2-a]indol-3-one, 1-(2,6-diamino-1-oxohexyl)-1,2,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-, dihydrochloride, $[2S-[1(R^*),2\alpha,9\beta,9(R^*),9a\beta]]-$ (9CI) (CA INDEX NAME)

●2 HC1

RN 102996-17-8 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-butanoic acid, 9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)- γ ,3-dioxo-, [2S-[2 α ,9 β ,9(7R*,7aR*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102996-18-9 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-butanoic acid, 9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)- γ ,3-dioxo-, monosodium salt, [2S-[2 α ,9 β ,9(7R*,7aR*),9a β]]- (9CI) (CA INDEX NAME)

Na

RN 103241-32-3 CAPLUS

CN Carbamic acid, $[1-[(4-hydroxyphenyl)methyl]-2-[2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-1H-imidazo[1,2-a]indol-1-yl]-2-oxoethyl]-, 1,1-dimethylethyl ester, [2S-[1(R*),2<math>\alpha$,9 β ,9(R*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 103241-34-5 CAPLUS

CN Butanedioic acid, 9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-2-(2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]-1H-imidazo[1,2-a]indol-9-yl phenylmethyl ester, [2S-[2 α ,9 β ,9(7R*,7aR*),9a β]]- (9CI) (CA INDEX NAME)

RN 103303-32-8 CAPLUS

CN Quinazolino[3,2-a][1,4]benzodiazepine-5,13-dione, 7-[[1-ethyl-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-9-yl]methyl]-6,7,7a,8-tetrahydro-, [2S-[2α,9β,9(7R*,7aR*),9a.beta.]]- (9CI) (CA INDEX NAME)

RN 103303-33-9 CAPLUS

CN 3H-Imidazo[1,2-a]indol-3-one, 1-(2,6-diamino-1-oxohexyl)-1,2,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-, [2S-[1(R*),2 α ,9 β ,9(R*),9a β]]- (9CI) (CA INDEX NAME)

IT 102743-51-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, acylation, and cholecystokinin antagonist activity of)

RN 102743-51-1 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[[(7S)-5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

IT 103241-31-2P 103241-33-4P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation, debenzylation, and cholecystokinin antagonist activity of)

RN 103241-31-2 CAPLUS

CN Carbamic acid, [1-[[4-(phenylmethoxy)phenyl]methyl]-2-[2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-1H-imidazo[1,2-a]indol-1-yl]-2-oxoethyl]-, 1,1-dimethylethyl ester, [2S-[1(R*),2α,9β,9(R*),9aβ]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 103241-33-4 CAPLUS

CN Butanedioic acid, phenylmethyl 2,3,9,9a-tetrahydro-2-(2-methylpropyl)-3-oxo-1-[(phenylmethoxy)carbonyl]-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-1H-imidazo[1,2-a]indol-9-yl ester, [2S-[2 α ,9 β ,9(R*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

IT 102743-57-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, deblocking, and cholecystokinin antagonist activity of)

RN 102743-57-7 CAPLUS

Carbamic acid, $[4-[[(1,1-dimethylethoxy)carbonyl]amino]-5-[9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-1-yl]-5-oxopentyl]-, phenylmethyl ester, <math>[2S-[1(R^*),2\alpha,9\beta,9(7R^*,7aR^*),9a\beta]]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

IT 102743-56-6P 102996-15-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, reduction, and cholecystokinin antagonist activity of)

RN 102743-56-6 CAPLUS

CN Carbamic acid, $[4-[(1,1-dimethylethoxy) carbonyl] amino] -5-[2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-1H-imidazo[1,2-a]indol-1-yl]-5-oxopentyl]-, phenylmethyl ester, [2S-[1(R*),2<math>\alpha$,9 β ,9(R*),9a β]- (9CI) (CA INDEX NAME)

RN 102996-15-6 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-butanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-1- (2-methylpropyl)- γ ,3-dioxo-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-, [2S-[2 α ,9 β ,9(R*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1986:442854 CAPLUS

DN 105:42854

TI Quinazolinobenzodiazepinedione derivatives

IN Bock, Mark G.; Freidinger, Roger M.; Evans, Ben E.

PA Merck and Co., Inc., USA

SO U.S., 13 pp.

CODEN: USXXAM

DT Patent

LA English

FAN CNT 1

t MM.	US 4559338 A 19851217 US 1985-695117 19850125				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 4559338	Α	19851217	US 1985-695117	19850125
	EP 190587	A1 ·	19860813	EP 1986-100620	19860118
	R: CH, DE, FR,	GB, IT	, LI, NL		
				US 1985-695117 A	19850125

OS MARPAT 105:42854

GI

AB Title compds. I (R1, R2, and R5 are H, Br, Cl, F, OH, alkoxy, alkyl; R3 = H, carboxyalkanoyl, aminoalkanoyl, etc.; R4 = H, alkyl, alkylthioalkyl, etc.; R6 = H, R3) were prepared, and they showed their usefulness as antagonists for cholecystokinins. Also prepared were 7a,8-dihydro derivs. of I. I (R1 = R2 = R3 = R4 = R5 = R6 = H) was treated with succinic anhydride and 4-(dimethylamino)pyridine to give I (R3 = COCH2CH2CO2H, R1 = R2 = R4 = R5 = R6 = H).

Ι

IT 103022-89-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and deprotection of)

RN 103022-89-5 CAPLUS

CN Carbamic acid, [5-[[(1,1-dimethylethoxy)carbonyl]amino]-6-oxo-6-[2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-1H-imidazo[1,2-a]indol-1-yl]hexyl]-, phenylmethyl ester, [2S-[1(R*),2α,9β,9(R*),9aβ]]- (9CI) (CA INDEX NAME)

IT 103066-42-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and selective deprotection of)

RN 103066-42-8 CAPLUS

CN Carbamic acid, [4-[[(1,1-dimethylethoxy)carbonyl]amino]-5-oxo-5-[2,3,9,9a-tetrahydro-2-(2-methylpropyl)-3-oxo-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-1H-imidazo[1,2-a]indol-1-yl]pentyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

IT 102743-51-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and O-acylation of, by succinic acid monoester)

RN 102743-51-1 CAPLUS

CN lH-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[[(7S)-5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Absolute stereochemistry.

RN 102996-16-7 CAPLUS CN 3H-Imidazo[1,2-a]indol-3-one, 1-(2,6-diamino-1-oxohexyl)-1,2,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-, dihydrochloride, [2S-[1(R*),2 α ,9 β ,9(R*),9a β]]- (9CI) (CA INDEX NAME)

●2 HCl

RN 102996-17-8 CAPLUS

CN lH-Imidazo[1,2-a]indole-1-butanoic acid, 9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)- γ ,3-dioxo-, [2S-[2 α ,9 β ,9(7R*,7aR*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102996-18-9 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-butanoic acid, 9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)- γ ,3-dioxo-, monosodium salt, [2S-[2 α ,9 β ,9(7R*,7aR*),9a β]]- (9CI) (CA INDEX NAME)

Na

102996-19-0 CAPLUS RN

Carbamic acid, [4-amino-5-[9-[(5,6,7,13-tetrahydro-5,13-CN dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-1-yl]-5oxopentyl]-, phenylmethyl ester, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN

102996-20-3 CAPLUS 1H-Imidazo[1,2-a]indole-1-acetic acid, 9-[(5,6,7,7a,8,13-hexahydro-5,13-CN dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo- (9CI) (CA INDEX NAME)

$$R$$
 HO_2C-CH_2-N
 $i-Bu$
 O

PAGE 2-A

RN 102996-21-4 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-acetic acid, 9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-, monosodium salt (9CI) (CA INDEX NAME)

PAGE 1-A

$$R$$
 HO_2C-CH_2-N
 $i-Bu$
 O

Na

RN 103066-41-7 CAPLUS

CN lH-Imidazo[1,2-a]indole-1-butanoic acid, 2,3,9,9a-tetrahydro-9-hydroxy-1- (2-methylpropyl)- γ ,3-dioxo-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-, monosodium salt, [2S-[2 α ,9 β ,9(R*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

● Na

ANSWER 14 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN L41986:435621 CAPLUS ΑN DN 105:35621 TΙ Quinazolino-1,4-benzodiazepine-5,13-diones Bock, Mark G.; Freidinger, Roger M.; Evans, Ben E.; Hartman, George D. IN PΑ Merck and Co., Inc. , USA so U.S., 21 pp. CODEN: USXXAM DT Patent LΑ English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. US 4563451 US 1985-695108 ΡI Α 19860107 19850125 EP 189802 19860806 EP 1986-100636 19860118 **A**1 R: CH, DE, FR, GB, IT, LI, NL US 1985-695108 19850125 JP 61176595 19860808 JP 1986-12276 19860124

OS

GΙ

MARPAT 105:35621

US 1985-695108

19850125

ΑB Quinazolino-1,4-benzodiazepine-5,13-diones I (X1-X3 = H, Br, C1, F, OH, C1-4 alkyl, C1-4 alkoxy, C2-5 alkanoyl; R = H, OH, Et, substituted Ph, etc.; R1 = H, CH2CHMe2), useful as cholecystokinin (CCK) antagonists in the treatment and prevention of disorders of the gastrointestinal, central nervous, and appetite-regulatory systems of mammals, are prepared from compds. produced by aerobic fermentation of Aspergillus alliaceus. The anti-CCK

activity of 11 prepared compds. was tested using the pancreas CCK receptor-binding method and the IC50 (µM) for each is reported. Thus, 268 mg 7β -[[2,3,9,9a α -tetrahydro-9 α -hydroxy-2-(2methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-9-yl]methyl]quinazolino[3,2-a]-1,4-benzodiazepine-5,13(6H,7H)-dione was reacted overnight with Ac2O to yield 50 mg 7-[[1-acetyl-2,3,9,9a α -tetrahydro-9 α -hydroxy-2-(2methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-9-yl]methyl]quinazolino[3,2-a]-1,4-benzodiazepine-5,13(6H,7H)-dione.

IT 102743-49-7P 102743-50-0P 102743-51-1P 102743-52-2P 102743-53-3P 102743-54-4P 102743-55-5P 102743-56-6P 102743-57-7P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as cholecystokinin antagonist)

RN 102743-49-7 CAPLUS

CN Quinazolino [3,2-a] [1,4] benzodiazepine-5,13-dione, 7-[[1-acetyl-2,3,9,9atetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-9yl]methyl]-6,7-dihydro-, $[2S-[2\alpha,9\beta,9(R^*),9a\beta]]-(9CI)$ (CA INDEX NAME)

RN 102743-50-0 CAPLUS

CN Quinazolino[3,2-a][1,4]benzodiazepine-5,13-dione, 7-[[1-ethyl-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-9-yl]methyl]-6,7,7a,8-tetrahydro- (9CI) (CA INDEX NAME)

RN 102743-51-1 CAPLUS

CN 1H-Imidazo[1,2-a]indole-1-carboxylic acid, 2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[[(7S)-5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl]methyl]-, phenylmethyl ester, (2S,9S,9aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 102743-52-2 CAPLUS

CN Quinazolino[3,2-a][1,4]benzodiazepine-5,13-dione, 6,7,7a,8-tetrahydro-7-[[2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1-(3-phenylpropyl)-1H-imidazo[1,2-a]indol-9-yl]methyl]-, [2S-[2 α ,9 β ,9(7R*,7aR*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102743-53-3 CAPLUS

CN Carbamic acid, [2-[9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-1-yl]-2-oxo-1-[[3-(phenylmethoxy)phenyl]methyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 102743-54-4 CAPLUS

CN Carbamic acid, [2-[9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-1-yl]-1-[(3-hydroxyphenyl)methyl]-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 102743-55-5 CAPLUS

CN Carbamic acid, [5-[[(1,1-dimethylethoxy)carbonyl]amino]-6-[9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-1-yl]-6-oxohexyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 102743-56-6 CAPLUS

CN Carbamic acid, $[4-[[(1,1-dimethylethoxy)carbonyl]amino]-5-[2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-9-[(5,6,7,13-tetrahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-1H-imidazo[1,2-a]indol-1-yl]-5-oxopentyl]-, phenylmethyl ester, [2S-[1(R*),2<math>\alpha$,9 β ,9(R*),9a β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102743-57-7 CAPLUS

CN Carbamic acid, $[4-[[(1,1-dimethylethoxy)carbonyl]amino]-5-[9-[(5,6,7,7a,8,13-hexahydro-5,13-dioxoquinazolino[3,2-a][1,4]benzodiazepin-7-yl)methyl]-2,3,9,9a-tetrahydro-9-hydroxy-2-(2-methylpropyl)-3-oxo-1H-imidazo[1,2-a]indol-1-yl]-5-oxopentyl]-, phenylmethyl ester, <math>[2S-[1(R^*),2\alpha,9\beta,9(7R^*,7aR^*),9a\beta]]-(9CI)$ (CA INDEX NAME)

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               SHUBHARA"/AU OR "SHARMA SHUBHRA"/AU OR "SHARMA SHUBRA"/AU)
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     ANSWER 1 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI
     Melanocortin metallopeptide constructs, combinatorial libraries
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=> t ti 17 1-55

and applications.

- L7 ANSWER 1 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
- TI Melanocortin metallopeptide constructs, combinatorial libraries and applications.
- L7 ANSWER 2 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

- TI Cyclic peptide melanocortin-4 receptor antagonists for the treatment of cachexia and other disorders
- L7 ANSWER 3 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Cyclic peptide melanocortin-4 receptor antagonists for the treatment of cachexia and other disorders
- L7 ANSWER 4 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Preparation of bicyclic melanocortin-specific compounds
- L7 ANSWER 5 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI α -MSH-, γ -MSH-, and bombesin-derived metallopeptide compounds
- L7 ANSWER 6 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Phosphodiesterase V inhibitor combination with melanocortin 3 and/or 4 receptor agonist for treatment of sexual dysfunction
- L7 ANSWER 7 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Substituted melanocortin receptor-specific piperazine compounds
- L7 ANSWER 8 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Metallopeptide compositions for treatment of sexual dysfunction
- L7 ANSWER 9 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Naphthalene-containing melanocortin receptor-specific small molecule
- L7 ANSWER 10 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Preparation of thieno[2,3-d]pyrimidine-2,4-diones as melanocortin receptor modulators
- L7 ANSWER 11 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN.
- TI Identification of target-specific folding sites in proteins using metallopeptide derivatives of sequences of interest
- L7 ANSWER 12 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Melanocortin metallopeptide constructs, combinatorial libraries, and therapeutic applications
- L7 ANSWER 13 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Knockout identification of target-specific sites in peptides by serial substitution of conformationally restricted metal-complexed residues in metallopeptide analogs
- L7 ANSWER 14 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Peptide composition for treatment of sexual dysfunction
- L7 ANSWER 15 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Preparation of piperazine melanocortin receptor-specific compounds \cdot
- L7 ANSWER 16 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Preparation of pyrrolidine melanocortin-specific compounds
- L7 ANSWER 17 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Preparation of piperazines as melanocortin-specific agonists, antagonists, or mixed agonists and antagonists.
- L7 ANSWER 18 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Bicyclic melanocortin-specific compounds
- L7 ANSWER 19 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Cyclic peptide compositions and methods for treatment of sexual

dysfunction

- L7 ANSWER 20 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Peptidomimetics of biologically active metallopeptides
- L7 ANSWER 21 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Linear and cyclic melanocortin receptor-specific peptides, and therapeutic use
- L7 ANSWER 22 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Melanocortin-4 receptor selective small molecules
- L7 ANSWER 23 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
- TI Melanocortin-4 receptor selective small molecules.
- L7 ANSWER 24 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Identification of target-specific folding sites in peptides and proteins
- L7 ANSWER 25 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Melanocortin metallopeptides for treatment of sexual dysfunction
- L7 ANSWER 26 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Conformationally-restricted N-alkylated amino acid analogs of MT-II to probe the message sequence of $\alpha-$ melanotropin
- L7 ANSWER 27 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
- TI Conformationally restricted N-alkylated amino acid analogs of MT-II to probe the message sequence of alpha-melanotropin.
- L7 ANSWER 28 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Melanocortin metallopeptide constructs, combinatorial libraries, and applications
- L7 ANSWER 29 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Metallopeptide combinatorial libraries synthesis and applications
- L7 ANSWER 30 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Structurally determined metallo-constructs peptides as imaging and diagnostic and radiotherapeutic agents
- L7 ANSWER 31 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Preparation of peptides having potent antagonist and agonist bioactivities at melanocortin receptors
- L7 ANSWER 32 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 1
- TI Prevention of reflex natriuresis after acute unilateral nephrectomy by melanocortin receptor antagonists.
- L7 ANSWER 33 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Preparation and biological activity of cyclic bridged α -MSH analogs
- L7 ANSWER 34 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 2
- Biological and conformational examination of stereochemical modifications using the template melanotropin peptide, Ac-Nle-c(Asp-His-Phe-Arg-Trp-Ala-Lys)-NH-2, on human melanocortin receptors.
- L7 ANSWER 35 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 3
- TI Selectivity of cyclic (D-Nal-7) and (D-Phe-7) substituted MSH analogues

- for the melanocortin receptor subtypes.
- L7 ANSWER 36 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 4
- TI Characterisation of D117A and H260A mutations in the melanocortin 1 receptor.
- L7 ANSWER 37 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 5
- TI Melanotropic peptide-conjugated beads for microscopic visualization and characterization of melanoma melanotropin receptors.
- L7 ANSWER 38 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
- TI Melanocortin antagonists define two distinct pathways of cardiovascular control by alpha- and gamma-melanocyte -stimulating hormones.
- L7 ANSWER 39 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Melanotropic peptide receptors: membrane markers of human melanoma cells
- L7 ANSWER 40 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 6
- TI Human epidermal melanocyte and keratinocyte melanocortin receptors: Visualization by melanotropic peptide conjugated microspheres (Latex beads).
- L7 ANSWER 41 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 7
- TI Melanocortin receptors: Identification and characterization by melanotropic peptide agonists and antagonists.
- L7 ANSWER 42 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation or STN DUPLICATE 8
- TI Cyclic Lactam alpha-Melanotropin Analogues of Ac-Nle-4-cyclo(Asp-5,D-Phe-7,Lys-10) alpha-Melanocyte -Stimulating Hormone-(4-10)-NH-2 with Bulky Aromatic Amino Acids at Position 7 Show High Antagonist Potency and Selectivity at Specific Melanocortin Receptors.
- LT ANSWER 43 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 9
- TI Design, synthesis, biology, and conformations of bicyclic alphamelanotropin analogues.
- L7 ANSWER 44 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 10
- TI The melanotropic peptide, (Nle-4, D-Phe-7)alpha-MSH, stimulates human melanoma tyrosinase activity and inhibits cell proliferation.
- L7 ANSWER 45 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 11
- TI Preformulation studies with melanotan-II: A potential skin cancer chemopreventive peptide.
- L7 ANSWER 46 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 12
- TI Multivalent melanotropic Peptide and Fluorescent Macromolecular Conjugates: New Reagents for Characterization of Melanotropin Receptors.

- L7 ANSWER 47 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 13
- TI Kinetics of degradation of a cyclic lactam analog of alphamelanotropin (MT-II) in aqueous solution.
- L7 ANSWER 48 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 14
- TI Melanotropic peptides for therapeutic and cosmetic tanning of the skin.
- L7 ANSWER 49 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Melanotropic peptides and melanoma cell receptors
- L7 ANSWER 50 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI A new class of positively charged melanotropin analogs: a new concept in peptide design .
- L7 ANSWER 51 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Melanotropic peptides for the identification, localization (imaging) and chemotherapy of melanoma
- L7 ANSWER 52 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 15
- TI Design, synthesis, and conformation of superpotent and prolonged acting melanotropins.
- L7 ANSWER 53 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Multivalent ligands for diagnosis and therapeutics
- L7 ANSWER 54 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Design of different conformational isomers of the same peptide: $\alpha-$ melanotropin
- L7 ANSWER 55 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
- TI Antisense peptides of melanocyte-stimulating hormone (MSH): surprising results

=> d ibib abs 17 1-55

L7 ANSWER 1 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:589657 BIOSIS DOCUMENT NUMBER: PREV200600593265

TITLE: Melanocortin metallopeptide constructs,

combinatorial libraries and applications.
Anonymous; Sharma, Shubh D. [Inventor]; Shi,

AUTHOR(S): Anonymous; Sharma, Shubh D. [Inventor]; Shi,

Yiqun [Inventor]; Yang, Wei [Inventor]; Cai, Hui-Zhi

[Inventor]

CORPORATE SOURCE: Cranbury, NJ USA

Cranbury, NJ USA ASSIGNEE: Palatin Technologies Inc

PATENT INFORMATION: US 07049398 20060523

PAILINI INFORMATION: 05 0/049396 20060323

SOURCE: Official Gazette of the United States Patent and Trademark

Office Patents, (MAY 23 2006) CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE: Patent LANGUAGE: English

ENTRY DATE: Entered STN: 8 Nov 2006

Last Updated on STN: 8 Nov 2006

AB Metallopeptides and metallopeptide combinatorial libraries specific for melanocortin receptors are provided, for use in biological, pharmaceutical and related applications. The metallopeptides and combinatorial libraries are made of peptides, peptidomimetics and

peptide-like constructs, in which the peptide, peptidomimetic or construct is conformationally fixed on complexation of a metal ion-binding portion thereof with a metal ion.

ANSWER 2 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:52833 CAPLUS

DOCUMENT NUMBER:

144:143091

TITLE:

Cyclic peptide melanocortin-4 receptor

antagonists for the treatment of cachexia and other

disorders

INVENTOR(S):

Sharma, Shubh D.; Rajpurohit, Ramesh;

Shadiack, Annette M.; Shi, Yi-Qun; Burris, Kevin D.

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of 1; U.S.

Ser. No. 638,071.

CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE:

7

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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R^7 \\
R^7 \\
R^4?
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AB The invention discloses highly selective melanocortin-4 receptor antagonist cyclic hexapeptides I [R1 = H, NH2, etc.; R2 = C(O)NH, NHC(O), S, SS; R3 = 4-imidazolyl, 3-indolyl; R4a, R4b (when present) = OH, halo, etc.; R5 = NH2, NH(C=NH)NH2; R6 = (un)substituted 1- or 2-naphthyl, (un)substituted 3-indolyl; R7 = OH, N(R11)(R12); R11, R12 = H, C1-4 linear or branched alkyl (with proviso); x = 1-4; y = 1-5 (x + y = 2-7); z = 2-5], as well as a method for treating body weight disorders, including cachexia, sarcopenia and wasting syndrome or disease, and treating inflammation and immune disorders.

L7 ANSWER 3 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:52895 CAPLUS

DOCUMENT NUMBER:

144:143092

TITLE:

Cyclic peptide melanocortin-4 receptor

antagonists for the treatment of cachexia and other

disorders

INVENTOR(S):

Sharma, Shubh D.; Rajpurohit, Ramesh;

Shadiack, Annette M.; Shi, Yi-Qun; Burris, Kevin D.

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S.

Ser. No. 638,071.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: .7

PATENT NO.					KIN	D :	DATE			APPL:	ICAT:	ION 1	NO.		Di	ATE	
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     US 2004138136
                               A1
                                                     US 2003-638071
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     WO 2006014552
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                              A2
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               KG, KZ, MD, RU, TJ, TM
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               LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
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               KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:
                                                     US 2001-304836P
                                                                              P 20010711
                                                     WO 2002-US22196
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                                                     US 2005-174851
                                                                             A 20050705
OTHER SOURCE(S):
                              MARPAT 144:143092
GΙ
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Ι

AB The invention discloses highly selective melanocortin-4 receptor antagonist cyclic hexapeptides I [R1 = H, NH2, R6C(0)NH; R2 = C(0)NH, NHC(0), S; R3a, R3b (when present) = OH, halo, alkyl, etc.; R4 = NH2, NH(C=NH)NH2; R5 = (un) substituted 1- or 2-naphthyl, (un) substituted 3-indolyl; R6 = H, NH2, etc.; x = 1-4; y = 1-5 (x + y = 2-7); z = 2-5], as well as a method for treating body weight disorders, including cachexia, sarcopenia and wasting syndrome or disease, and treating inflammation and immune disorders.

L7 ANSWER 4 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:961972 CAPLUS

DOCUMENT NUMBER: 143:248665

TITLE: Preparation of bicyclic melanocortin

-specific compounds

INVENTOR(S): Sharma, Shubh D.; Shi, Yi-Qun; Wu, Zhijun;

Rajpurohit, Ramesh

PATENT ASSIGNEE(S): Palatin Technologies, Inc., USA

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: Facent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.			KIN	D :	DATE		1	APPL	ICAT	ION	.00		Di	ATE				
	WO	2005	0795	74		A1		2005	0901	,	WO 2	004-	us15	 05		2	0040	121	
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			ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW	
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			TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
PRIC	RIORITY APPLN. INFO.:									1	WO 2	004-	US15	05		2	0040	121	
OTHE	THER SOURCE(S):					MAR	PAT	143:	2486										
GT																			

$$\begin{array}{c|c}
R^2 & X & R^1 \\
R^3 & X^1 & I
\end{array}$$

II

The invention discloses melanocortin receptor (MC-R)-specific bicyclic compds. having the structure I [R1 is L1-J, where L1 is a linker and J is a ring structure; R2 is (CH2)1-6-W, where W is a heteroarom. unit with at least one cationic center, hydrogen bond donor or acceptor in which at least one atom is N; R3 is L2-Q, where L2 is a linker and Q is (un)substituted Ph or naphthyl: X = CH2 or CO; X1 is null or CH2], or stereoisomers or pharmaceutically-acceptable salts, which are agonists, antagonists or mixed agonists and antagonists at one or more melanocortin receptors and have utility in the treatment of melanocortin receptor-related disorders and conditions. Thus, pyrroloimidazolyl peptide II was prepared and assayed for competitive binding against 128I-NDP- α -MSH (90, 14, 81 and 86% inhibition for MC1-R, MC3-R, MC4-R and MC5-R, resp., at 1 μ M).

REFERENCE COUNT:

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1333961 CAPLUS

DOCUMENT NUMBER:

144:64389

TITLE:

 α -MSH-, γ -MSH-, and bombesin-derived

metallopeptide compounds

INVENTOR(S):

Sharma, Shubh D.; Shi, Yi-Qun; Rajpurohit, Ramesh; Cai, Hui-Zhi; Bastos, Margarita

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 43 pp., Cont.-in-part of U.S.

Ser. No. 769,695.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.				KIN		DATE			APPI	LICATI	I NO	10.		D	ATE		
	WO	20052 20020 20020	0647	34		A1 A2		2002	0822			2005-1 2001-0				-	0050 0011	
	US	W: RW: 20050 20042	AE, CO, GM, LS, RO, UZ, GH, KG, GR, GN,	AG, CR, HR, LT, RU, VN, GM, KZ, IE, GQ, 93	AL, CU, HU, SD, YU, KE, MD, IT, GW,	AM, CZ, ID, LV, SE, ZA, LS, RU, LU, ML, A1	AT, DE, IL, MA, SG, ZW MW, TJ, MC, MR,	AU, DK, IN, MD, SI, MZ, TM, NL, NE, 2005	AZ, DM, IS, MG, SK, SD, AT, PT, SN,	DZ, JP, MK, SL, SL, SE, TD,	EC, KE, MN, TJ, SZ, CH, TR, TG 22 22 22 22 22 22 22 22 22 22 22 22 22	BG, EE, KG, MW, TM, TZ, CY, BF, 2003-42000-22001-32001-32003-42003-42004-52004-5	ES, KP, MX, TR, UG, DE, BJ, 46411 76969 44411 46411 76969	FI, KR, MZ, TT, ZM, DK, CF, 17 95 42P 35P 075 29P 17	GB, KZ, NO, TZ, ZW, ES, CG,	GD, LC, NZ, UA, AM, FI, CI, 2 2 P 2 P 2 P 2 P 2 P 2 P 2 P 2 P 2 P 2	GE, LK, PL, UG, AZ, FR, CM,	GH, LR, PT, US, BY, GB, GA, 617 130 219 711 004 219 131 617 130
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AB The invention discloses metallopeptides with a sequence of a biol. active $\alpha\textsc{-MSH}$, $\gamma\textsc{-MSH}$, or bombesin sequence of length n residues, wherein a residue including a nitrogen atom and sulfur atom each available for complexation to a metal ion is inserted at any position from between the two and three position to the C-terminus side of the n position, or alternatively is substituted for the residue at any position from the

three position to the n position, with a metal ion complexed thereto, with any proline residue which is either of the two residues on the immediately adjacent amino-terminus side of the inserted or substituent residue comprising a nitrogen atom and sulfur atom available for complexation to a metal ion is substituted with a homolog. In one embodiment, the metal atom is rhenium.

L7 ANSWER 6 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1078201 CAPLUS

DOCUMENT NUMBER:

143:319194

TITLE:

Phosphodiesterase V inhibitor combination with

melanocortin 3 and/or 4 receptor agonist for

treatment of sexual dysfunction

INVENTOR(S):

Diamond, Lisa E.; Earle, Dennis; Shadiack, Annette M.;

Sharma, Shubh D.; Spana, Carl

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U.S.

APPLICATION NO.

DATE

Ser. No. 638,071.

DATE

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

KIND

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

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US	2005	2220					2005				005-				2	0050	
US	6579	968			В1		2003	0617		US 2	000-	6065	01		2	0000	628
EP	1593	384			A2		2005	1109		EP 2	005-	7591	4		2	0000	629
EP	1593	384			A3		2006	0426									
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			SE, NE,				BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
PRIORIT	Y APP	•		•	•					US 1	999-	1423	46P		P 1	9990	629
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AB The	e inv	enti	on d	iscl	oses	a n	ulti	ple									exual

AB The invention discloses a multiple agent therapy for treatment of sexual dysfunction, including male erectile dysfunction, with sequential administration of a type V phosphodiesterase (PDE-5) inhibitor, e.g. sildenafil, preferably where the PDE-5 inhibitor is administered by oral dose means, and a melanocortin 3 and/or 4 receptor agonist, e.g. Ac-Nle-cyclo(-Asp-His-D-Phe-Arg-Trp-Lys)-OH (PT-141), preferably wherein

the PT-141 is formulated for and administered by intranasal means, and further preferably wherein the PDE-5 inhibitor is administered prior to PT-141.

ANSWER 7 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN L7

ACCESSION NUMBER:

2005:735324 CAPLUS

DOCUMENT NUMBER:

143:211935

TITLE:

Substituted melanocortin receptor-specific

piperazine compounds

INVENTOR(S):

Sharma, Shubh D.; Shi, Yi-qun; Rajpurohit,

Ramesh; Wu, Zhijun

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 43 pp., Cont.-in-part of U.S.

Ser. No. 837,519.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

•	PATENT NO.					KIN	D	DATE	_		APPL	ICAT	ION :	NO.		D	ATE		
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	WO	2003		. —				2003			WO 2						0020		
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				-				IN,	•		•	•	•	•	•	•	•	•	
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			UZ,	VN,	YΨ,	ZA,	zw												
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			PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	
				SN,															
•	US	2004	1572	64		A 1		2004	0812		US 2	004-	7620	79		2	0040	121	
	WO	2005	1023	40		A1		2005	1103		WO 2	004-	US14	62		2	0040	121	
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			NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	
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			-	-				ТJ,			•				• .	•		•	
								HU,											
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	US	2004			•	Αĺ		2004									0040		
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											US 2					P 2			
											US 2						0040		
											US 2					A2 2			
OTHER	R 50	OURCE	(S):			MAR	PAT	143:	2119		05 2	,	0313	1 <i>9</i>		nz Z	0040		
GI																			

AB Melanocortin receptor-specific compds. of the general formulas I and II and pharmaceutically acceptable salts thereof, where J is a substituted or unsubstituted monocyclic or bicyclic ring structure; L is a linker; W is a heteroatom unit with at least one cationic center, hydrogen bond donor or hydrogen bond acceptor; Q includes a substituted or unsubstituted aromatic carbocyclic ring; R6 = H, :O, :S or CH3; R7 = NH2, NH-R8, or R8-N-R8; R8 = C1 to C6 linear or branched chain or an amine capping group, and where there are two R8 groups, each R8 is independently a C1 to C6 linear or branched chain or an amine capping group; y = 0-6; and z = 0-6, and the carbon atom marked with an asterisk can have any stereochem. configuration, and optionally with one or two addnl. ring substituents, which compds. bind to one or more melanocortin receptors and are optionally an agonist, a partial agonist, an antagonist, an inverse agonist or an antagonist of an inverse agonist, and may be employed for treatment of one or more melanocortin receptor-associated conditions or disorders, and methods for the use of the compds. of the invention.

L7 ANSWER 8 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:672855 CAPLUS

DOCUMENT NUMBER:

143:166711

TITLE:

Metallopeptide compositions for treatment of sexual

dysfunction

INVENTOR(S):

Sharma, Shubh; Shadiack, Annette M.; Yang,

Wei; Rajpurohit, Ramesh

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 17 pp., Cont.-in-part of U.S.

Ser. No. 640,755.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT NO.	KIND DATE	APPLI	CATION NO.	DATE
US 2005164914	A1 20050	0728 US 20	005-36273	20050114
US 5891418	A 1999	0406 US 19	95-476652	19950607
US 6027711	A 20000	0222 US 19	96-660697	19960605
WO 2002064091	A2 20020	0822 WO 20	002-US4431	20020213
WO 2002064091	A3 20030	0313		
W: AE, AG, AL,	AM, AT, AU,	AZ, BA, BB,	BG, BR, BY, BZ,	CA, CH, CN,
			EE, ES, FI, GB,	
			KG, KP, KR, KZ,	
			MW, MX, MZ, NO,	
RO, RU, SD,	SE, SG, SI,	SK, SL, TJ,	TM, TR, TT, TZ,	UA, UG, US,
UZ, VN, YU,				
RW: GH, GM, KE,	LS, MW, MZ,	SD, SL, SZ,	TZ, UG, ZM, ZW,	AT, BE, CH,
			IT. LU. MC. NI.	

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BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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PRIORITY APPLN. INFO.:
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                                           US 2003-640755
                                                               A2 20030813
                                           US 2004-536691P
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OTHER SOURCE(S): MARPAT 143:166711

Metallopeptide compns. are provided for treatment of sexual dysfunction in mammals, including male sexual dysfunction, such as erectile dysfunction, and female sexual dysfunction. The metallopeptides include at least one, and preferably two, aromatic amino acid side chain moieties, and are further characterized in that the metallopeptides preferably do not bind or significantly bind to a melanocortin receptor. Preparation of the metallopeptides is described.

ANSWER 9 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:527392 CAPLUS

DOCUMENT NUMBER:

143:20084

TITLE:

Naphthalene-containing melanocortin receptor-specific small molecule

INVENTOR(S):

Sharma, Shubh D.; Shadiack, Annette M.; Shi,

Yi-Qun; Wu, Zhijun; Rajpurohit, Ramesh; Burris, Kevin;

Purma, Papireddy

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S.

Ser. No. 837,519.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACG. NUM. COUNT:

PAT	CENT :	NO.			KIN		DATE			APPL:		ION I			Di	ATE		
	2005				A 1					US 2	005-	3628	2		-	0050	 114	
WO	2003															0020		
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WO	2005	1023	40		A1		2005	1103		WO 2	004-1	US14	62		2	0040	121	
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PRIORITY APPLN. INFO.:
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                                                                 A2 20040121
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                                             US 2004-559741P
                                                                    20040405
                                             US 2004-563739P
                                                                    20040419
                                             US 2004-837519
                                                                 A2 20040430
                         MARPAT 143:20084
OTHER SOURCE(S):
     A method of modulating energy homeostasis in a mammal without eliciting a
     sexual response by administration of a therapeutically effective amount of a
     pharmaceutical composition including a melanocortin receptor compound
     of the formula I (where R1 = a bond or a linker unit including from one to
     six backbone atoms and an unsubstituted naphthalene group, L = a
     conformationally restricted ring system consisting of a single ring or
     bicyclic nonarom. carbocyclic ring system, etc., R2= -(CH2)4NH2,-
     (CH2) 3NHC(NH2)=NH, etc., R3 = L-or D-isomer of Phe, Phe(4-F), Phe(4-Br),
     etc., and Rx = H, C-C6 aliphatic linear chain, etc.).
     ANSWER 10 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2005:497489 CAPLUS
DOCUMENT NUMBER:
                         143:26632
TITLE:
                         Preparation of thieno[2,3-d]pyrimidine-2,4-diones as
                         melanocortin receptor modulators
INVENTOR(S):
                         Sharma, Shubh D.; Shi, Yiqun
                         Palatin Technologies, Inc., USA
PATENT ASSIGNEE(S):
                         U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S.
SOURCE:
                         Ser. No. 837,519.
                         CODEN: USXXCO
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
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                                                                    DATE
                                20050609
     US 2005124636
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                                             US 2005-40838
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        TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
    RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
        BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
        ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
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TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2004224957 20041111 A1 US 2004-837519 20040430 PRIORITY APPLN. INFO.: 20010810 US 2001-311404P Р WO 2002-US25574 A2 20020812 US 2003-467442P Ρ 20030501 US 2003-474497P Ρ 20030530 US 2004-538100P P 20040121 US 2004-761889 A2 20040121 US 2004-762079 A2 20040121 US 2004-546393P 20040219 US 2004-837519 A2 20040430

OTHER SOURCE(S):

MARPAT 143:26632

GΙ

PhCH₂

$$R^2$$
 R^3
 R^3
 R^4
 R^3
 R^4
 R^3
 R^4
 R^3
 R^4
 $R^$

AB Title compds. I [R1 = L1-J; R2 = L2-W; R3 = L3-T; R4 = L4-Q; L1 = bond or linker with provisos; J = carbocyclic ring group comprising at least one aromatic ring; L2 = (CX)m; W = (un)substituted aromatic carbocyclic ring, non-aromatic carbocyclic ring, aromatic fused carbocyclic rings, etc.; L3, L4 = (CH2)m; T = heteroatom unit with at least one cationic center with provisos; Q = carbocyclic ring comprising at least one aromatic ring; X = H, H2, alkyl; m = 1-6] and their pharmaceutically acceptable salts were prepared For example, 4-chlorobenzyl chloride N-alkylation of pyrimidine II, afforded thienopyrimidinyldione III (no data). Compds. I are claimed to be useful for the treatment of melanocortin receptor-associated disorders.

L7 ANSWER 11 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:59906 CAPLUS

DOCUMENT NUMBER:

142:148744

TITLE:

Identification of target-specific folding sites in proteins using metallopeptide derivatives of sequences

III

of interest

INVENTOR(S):

Sharma, Shubh D.; Shi, Yi-qun

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 75 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	AP	PLICATION NO.		DATE
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US 2005014193	A1	20050120	US	2003-464117		20030617
US 2004248212	A1	20041209	US	2004-769695		20040130
US 2005282739	A1	20051222	US	2005-188552		20050725
PRIORITY APPLN. INFO.:			US	2000-256842P	P	20001219
			US	2001-304835P	P	20010711
			បន	2001-327835P	P	20011004
			WO	2001-US50075	A1	20011219
			US	2003-444129P	Р	20030131
			US	2003-464117	A2	20030617
	•		US	2004-769695	A2	20040130
•		•	US	2004-590933P	Р	20040723

AB A method of identifying peptides that take up folded conformations and that bind to specific protein target is described. The method involves creating a systematic series of substitution derivs. of the peptide. These derivs. use amino acids or amino acid analogs containing a nitrogen or sulfur atom that can bind to a metal atom. The resulting metallopeptides are then used in binding or functional assays related to the target of interest, and the metallopeptide demonstrating binding or functional activity is selected. The structure of the metallopeptide can then be determined and a novel pharmacophore can be identified. The invention provides for defined pharmacophores of receptors or targets of interest and directed libraries for identification and determination of target-specific folding

sites in peptides and proteins and for identification and determination of pharmacophores of receptors or targets of interest.

ANSWER 12 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:425889 CAPLUS

DOCUMENT NUMBER:

144:481641

TITLE:

Melanocortin metallopeptide constructs,

combinatorial libraries, and therapeutic applications

INVENTOR(S):

Cai, Hui-Zhi; Yang, Wei; Shi, Yi-Qun; Sharma,

Shubh D.

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

Aust. Pat. Appl., 81 pp.

CODEN: AUXXCM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AU 2005201166	A1	2005.0505	AU 2005-201166	20050317
PRIORITY APPLN. INFO.:			AU 2000-58742 A	3 20000615

AB The present invention relates to metallopeptides, metal ion-complexed peptidomimetics, and metallo-constructs, including metallopeptide combinatorial libraries, metal ion-complexed peptidomimetic and peptide-like combinatorial libraries and metallo-construct combinatorial libraries, specific for melanocortin receptors, including methods for the use and making of the same. The invention also relates to methods for synthesizing and assembling such libraries, and methods for identification and characterization of library constituents which are capable of binding a melanocortin receptor of interest, or

mediating a melanocortin receptor-related biol. activity of interest. Metallopeptides of this invention that are melanocortin receptor 1 specific can be used as radiodiagnostic agents or radiotherapeutic agents when complexed to radionuclides. Metallopeptides of this invention that are melanocortin receptor 1 specific can be used as chemopreventive agents against sun-induced neoplastic activity in human skin. Metallopeptides of this invention that are melanocortin receptor 4 antagonists can also be used as a therapeutic agent in eating disorders.

L7 ANSWER 13 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:740117 CAPLUS

DOCUMENT NUMBER: 141:256945

TITLE:

Knockout identification of target-specific sites in
peptides by serial substitution of conformationally
restricted metal-complexed residues in metallopeptide

analogs

INVENTOR(S): Sharma, Shubh D.; Shi, Yi-Qun; Rajpurohit,

Ramesh; Bastos, Margarita; Cai, Hui-Zhi

PATENT ASSIGNEE(S): Palatin Technologies, Inc., USA

SOURCE:

PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                        KIND
                               DATE
                                           APPLICATION NO.
                                                                  DATE
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                         A2
    WO 2004075830
                               20040910
                                           WO 2004-US2933
                                                                   20040202
    WO 2004075830
                         А3
                               20060928
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            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
            NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
            TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
            BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
            MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
            GQ, GW, ML, MR, NE, SN, TD, TG, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    US 2004248212
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                                           US 2004-769695
                         A1
                                                                  20040130
     CA 2516750
                                20040910
                                           CA 2004-2516750
                         Α1
                                                                   20040202
     EP 1594442
                                20051116
                                           EP 2004-737267
                         A2
                                                                  20040202
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            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRIORITY APPLN. INFO.:
                                           US 2003-444129P
                                                               P 20030131
                                            US 2004-769695
                                                               A 20040130
                                           US 2000-256842P
                                                                Ρ
                                                                   20001219
                                           US 2001-304835P
                                                               Ρ
                                                                   20010711
                                           ·US 2001-327835P
                                                               Ρ
                                                                   20011004
                                            WO 2001-US50075
                                                               A1 20011219
                                           US 2003-464117
                                                                A2 20030617
                                           WO 2004-US2933
                                                                W 20040202
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AB The invention provides methods for identification and determination of target-specific sites in peptides and proteins, including a method for determining the primary sequence of a secondary structure within a known parent polypeptide that binds to the target of interest. A residue or mimetic containing a nitrogen atom and a sulfur atom available for binding to a metal ion is serially substituted for single residues in or inserted between adjacent residues in a known primary sequence of the peptide or protein. The resulting sequence is complexed with a metal ion thereby forming a metallopeptide with a conformationally fixed and predictable secondary

structure of the residues involved in metal ion complexation. resulting metallopeptides are then used in binding or functional assays related to the target of interest, and the metallopeptide(s) which result in significant or substantially decreased or changed binding or functionality are determined to identify the primary sequence involved in such binding or functionality. The method is exemplified by $\alpha\text{-MSH}$ and bombesin analogs containing L-/D-cysteine insertions or substitutions complexed to the rhenium metal ion, and their binding to their resp. receptors.

ANSWER 14 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:41502 CAPLUS

DOCUMENT NUMBER: 140:105305

TITLE: Peptide composition for treatment of sexual

dysfunction

INVENTOR(S): Sharma, Shubh D.; Shadiack, Annette M.;

Yang, Wei; Rajpurohit, Ramesh Palatin Technologies, Inc., USA

PATENT ASSIGNEE(S): PCT Int. Appl., 80 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.					KINI	D	DATE		1	APPL:	ICAT:				D	ATE	
	_	2004				A2 A3		2004 2004		1	WO 2					2	0030	709
		W:									BB, EC,							
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
											MN, SK,							
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		RW:									SZ, BG,							
											MC,							
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						A1 A					AU 2 BR 2						0030	
DD T 0.5	BR 2003005628 US 2005124553					A1		2005	0609								0050	
PKTOF	RIORITY APPLN. INF			INFO	. :						US 2 WO 2						0020 0030	

MARPAT 140:105305

Peptides for treatment of sexual dysfunction, including erectile dysfunction and female sexual dysfunction, and combination drugs and method of use thereof, including a peptide of the invention and one or more second sexual dysfunction pharmaceutical agents are disclosed.

ANSWER 15 OF 55 .CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:965987 CAPLUS

DOCUMENT NUMBER: 141:411221

TITLE: Preparation of piperazine melanocortin

receptor-specific compounds

INVENTOR(S): Sharma, Shubh D.; Shi, Yi-qun; Rajpurohit,

Ramesh; Wu, Zhijun; Purma, Papireddy; Shadiack,

Annette M.; Burris, Kevin D.

PATENT ASSIGNEE(S): Palatin Technologies, Inc., USA SOURCE: U.S. Pat. Appl. Publ., 69 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

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US 2 AU 2 WO 2 WO 2 BR 2 CN 1 JP 2 US 2 US 2 US 2 US 2 US 2	CO0422495 CO0423575 CO0409866 W: AE, CN, GE, LK, NO, TJ, RW: BW, AZ, EE, SI, SN, 622618 R: AT, IE, CO0401065 816337 CO0652536 CO0513096 CO0512463 CO0517672 CO0628733 CO0628733 CO0628733	57 92 02 AG, A CO, C GH, G LR, L SH, T BE, C SI, L 94 69 88 88 36 31 32 INFO::	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	AT CZ HU LU PH TT LS MD GB BJ FI	2004 2004 2004 AU, DE, ID, LV, PL, TZ, MW, RU, GR, CF,	1111 1118 1118 1118 AZ, DK, IL, MA, PT, UA, MZ, TJ, HU, CG, 0208 FR, MK, 0620 0809 1109 0616 0609 0811 1221	BA, DM, IN, MD, RO, UG, NA, TM, IE, CI,	USU 22, , , 2 , , 2 2 2 2 2 2 2 2 2 2 2 2	004- 004- 004- 004- 004- 004- 004- 004-	83757 837573 823513, EE, KE, MN, SD, SE, SC, SE, SE, SE, SE, SE, SE, SE, SE, SE, SE	19 92 80 80 80 80 80 80 80 80 80 80	BY, ES, KP, MX, SG, YU, UG, CY, PL, GW,	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0040 0040 CA, GB, KZ, NA, SL, ZM, ZW, DE, RO, MR,	503 CH, GD, NI, SY, ZW AM, NE, 503 PT, 503 503 114 121 405 811 811 811 811 121 121 121	HR
OTHER SOU	JRCE(S):		MA)	RPAT	141:	4112	1	US 2 US 2 US 2 US 2 WO 2	004- 004- 004- 004- 004-		79 41P 39P 19 803		A2 2 P 2 P 2 A 2 W 2	0040	121 405 419 430 503	

The invention relates to amino acid-derived piperazine compds. I [X is CH2, CO or CS; R1 is -L1-J; one of R2a and R2b is -L2-W and the other is H; R3 is -L3-Q; L1 is a bond or a linker unit comprising from one to eight backbone atoms selected from carbon, sulfur, oxygen or nitrogen; J is a ring structure, e.g., an (un) substituted aromatic or non-aromatic carbocyclic ring; L2 is a bond or (CH2)1-6; W is a heteroatom unit with at least one cationic center, hydrogen bond donor or acceptor (at least one heteroatom is nitrogen or oxygen); L3 is a bond or a linker unit comprising from one to nine backbone atoms selected from carbon, sulfur, oxygen or nitrogen; Q is (un)substituted Ph or naphthyl; one or two of R4a, R4b, R5a and R5b are independently -L2-W or an aliphatic chain and the others are H, provided that at least one of R4a and R4b and at least one of R5a and R5b is H], including enantiomers, stereoisomers, diastereoisomers or pharmaceutically-acceptable salts, which bind with high affinity to one or more melanocortin receptors (MCR) and may be employed for treatment of melanocortin receptor-associated conditions or disorders. Thus, piperazine derivative II was prepared via reactions of 2-naphthylacetic acid, (R)-(-)-2-amino-1-propanol, Fmoc-L-Arg(Boc)2-OH (Fmoc = fluorenylmethoxycarbonyl, Boc = tert-butoxycarbonyl), and Boc-D-4-chloro-2-methyl-L-phenylalanine. Compound II was shown to be a partial agonist as to MC4-R and in rats caused a decrease in food intake (administration 2 h prior to food presentation) and induced penile erection at $0.3-30 \mu g/Kg$.

ΙI

ANSWER 16 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:703130 CAPLUS

DOCUMENT NUMBER:

141:207526

TITLE:

Preparation of pyrrolidine melanocortin

-specific compounds

INVENTOR(S):

Sharma, Shubh D.; Shi, Yi-qun; Wu, Zhijun;

Rajpurohit, Ramesh

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 30 pp., Cont.-in-part of Appl.

No PCT/US02/25574.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

PAT	PATENT NO.				KIN	D	DATE		i	APPL	ICAT	ION I	NO.		. D	ATE	,
	20Ò4																
WO	2003	0135	71		A1		2003	0220	1	WO 2	002-	US25	574		2	0020	812
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		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,
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		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,
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PRIORITY	PRIORITY APPLN. INFO.:								US 2	001-	3114	04P		P 2	0010	810 ′	
	•								• 1	WO 2	002-	US25	574	٠.	A2 2	0020	812
OTHER SO				MAR	PAT	141:	20752	26									

. II ·

AB The invention relates to melanocortin receptor (MC-R)-specific pyrrolidine compds. I [R1 is -L1-J, where L1 is a linker (CH2)0-6, O, NH, etc. and J is a ring structure; R2 is CO-W or CONH(CH2)0-6-W, where W is a heteroatom unit with at least one nitrogen atom and at least one cationic center, hydrogen bond donor or acceptor; R3 is -L2-Q, where L2 is a linker COCH(NH2)CH2, COCH2O, 5-carbonyl-substituted 3-pyrrolidinyl, etc.; preferably R3 is a D-amino acid with at least one (un)substituted Ph or naphthyl ring or 1-3 addnl. amino acid residues, optionally with an amine capping group] and their pharmaceutically-acceptable salts, which are agonists/antagonists at one or more melanocortin receptor-related disorders and conditions. Thus, peptide II was prepared by the solid-phase method and shown to be an agonist of MC1-R (Ki = 10 nM).

L7 ANSWER 17 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:652533 CAPLUS

DOCUMENT NUMBER:

141:191073

TITLE:

Preparation of piperazines as melanocortin

-specific agonists, antagonists, or mixed agonists and

antagonists.

INVENTOR(S):

Ι

Sharma, Shubh D.; Shi, Yi-qun; Wu, Zhijun;

Rajpurohit, Ramesh

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 70 pp., Cont.-in-part of Appl.

No. PCT/US02/25574.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

8

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OTHER SOURCE(S): GI

MARPAT 141:191073

$$R^{2}$$
 $R^{3}N$
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 Q^{1}
 Q^{2}
 Q^{2}
 Q^{2}
 Q^{3}
 Q^{4}
 Q^{4}
 $Q^{5}N$
 $Q^{5}N$
 $Q^{5}N$
 Q^{6}
 Q^{1}
 Q^{1}
 Q^{1}
 Q^{1}
 Q^{2}
 Q^{2}
 Q^{3}
 Q^{4}
 $Q^{5}N$
 $Q^{5}N$

AB Title compds. [I; R1 = L1J, H; R2 = (CH2)yW, J, L1J; R3 = L2Q; L1 = (CH2)y, O(CH2)y, NH(CH2)y, CO(CH2)y, CO2(CH2)y, CH2CONH; J = (substituted) aryl, carbocyclyl, carbobicyclyl, heterobicyclyl; W = heteroatom unit with ≥1 cationic center, hydrogen bond donor, or hydrogen bond acceptor wherein ≥1 atom = N; L2 = Q1, Q2, Q3, Q4, etc.; Q = (substituted) Ph, naphthyl; R4 = H, R5, R5R6; R5 = amino acid residue, amine capping group; R6 = H, amine capping group; y = 1-6], were prepared Thus, title compound (II; Q5 = 2,4-dichloro-D-phenylalanyl) (general preparation given) at

μM gave 95% inhibition of melanocortin MC4-R.

L7 ANSWER 18 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:633168 CAPLUS

DOCUMENT NUMBER:

INVENTOR(S):

141:151030

TITLE:

Bicyclic melanocortin-specific compounds Sharma, Shubh D.; Shi, Yi-Qun; Wu, Zhijun;

Rajpurohit, Ramesh

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 42 pp., Cont.-in-part of WO

2003 13,571. CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

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PATENT NO.	KIND DATE	APPLICATION NO.	DATE
US 2004152134 WO 2003013571	A1 20040805 A1 20030220		20040121 20020812
W: AE, AG, AL	, AM, AT, AU, AZ,	BA, BB, BG, BR, BY, BZ,	CA, CH, CN,
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GM, HR, HU	, ID, IL, IN, IS,	JP, KE, KG, KP, KR, KZ,	LC, LK, LR,
LS, LT, LU	, LV, MA, MD, MG,	MK, MN, MW, MX, MZ, NO,	NZ, PL, PT,
RO, RU, SD	, SE, SG, SI, SK,	SL, TJ, TM, TR, TT, TZ,	UA, UG, US,
UZ, VN, YU	, ZA, ZW		
RW: GH, GM, KE	, LS, MW, MZ, SD,	SL, SZ, TZ, UG, ZM, ZW,	AT, BE, BG,
CH, CY, CZ	, DE, DK, EE, ES,	FI, FR, GB, GR, IE, IT,	LU, MC, NL,
PT, SE, SK	, TR, BF, BJ, CF,	CG, CI, CM, GA, GN, GQ,	GW, ML, MR,
NE, SN, TD	, TG		

US 2005130988	A1	20050616	US	2005-36282		20050114
US 2005124636	A1	20050609	US	2005-40838		20050121
PRIORITY APPLN. INFO.:			US	2001-311404P	Р	20010810
			WO	2002-US25574	A2	20020812
•			US	2003-467442P	P	20030501
			US	2003-474497P	P	20030530
			US	2004-536606P	P	20040114
			US	2004-538100P	P	20040121
·			US	2004-761889	A2	20040121
			US	2004-762079	A2	20040121
			US	2004-546393P	P	20040219
,			US	2004-559741P	P	20040405
			US	2004-563739P	P	20040419
			US	2004-837519	A2	20040430

OTHER SOURCE(S):

MARPAT 141:151030

GI

$$R^2$$
 X
 N
 R^1
 R^3
 N
 Z

The invention discloses melanocortin receptor-specific bicyclic AB compds. having the structure I (R1 = L1-J wherein L1 is a linker and J is a ring structure selected form the group consisting of substituted or unsubstituted aromatic carboxylic rings, substituted or unsubstituted non-aromatic carboxylic rings, substituted or unsubstituted aromatic fused carbobicyclic ring groups, etc.; R2 = (CH2)y-W wherein W is a heteroarom. unit with at least one cationic center, hydrogen bond donor or hydrogen bond acceptor wherein at least one atom is N; R3 = L2-Q wherein L2 is a linker and Q is an aromatic carboxylic ring selected from the group consisting of Ph, substituted Ph, naphthyl and substituted naphthyl: X = CH2 or C=O and z is O or 1), and stereoisomer and pharmaceutically acceptable salts thereof, which are agonists, antagonists or mixed agonists and antagonists at one or more melanocortin receptors, and having utility in the treatment of melanocortin receptor-related disorders and conditions. Pharmaceutical compns. containing a compound of structure I and methods relating to the use thereof for treating eating disorders and sexual dysfunction are also disclosed.

ANSWER 19 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:569853 CAPLUS

DOCUMENT NUMBER:

141:117192

TITLE:

Cyclic peptide compositions and methods for treatment

of sexual dysfunction

INVENTOR(S):

Sharma, Shubh D.; Shadiack, Annette M.;

Rajpurohit, Ramesh; Yang, Wei

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 33 pp., Cont.-in-part of U.S.

Ser. No. 40,547.

CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004138136	A1	20040715	US 2003-638071	20030808

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US 6579968
                            В1
                                   20030617
                                                US 2000-606501
                                                                          20000628
     EP 1593384
                            A2
                                   20051109
                                                EP 2005-75914
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     EP 1593384
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             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     US 2002107182
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     US 6794489
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                            A2
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                            A3
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              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
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     WO 2005014617
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     WO 2005014617
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                                   20060614
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              AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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                                                US 2005-139730
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     US 2006014676
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PRIORITY APPLN. INFO.:
                                                US 2000-606501
                                                                       A2 20000628
                                                US 2002-40547
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                                                WO 2002-US22196
                                                                       A 20020711
                                                US 1999-142346P
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                                                                          19990629
                                                US 2000-194987P
                                                                       P 20000405
                                                EP 2000-950283
                                                                       A3 20000629
                                                US 2001-304836P
                                                                       Ρ
                                                                          20010711
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                                                                          20040527
                                                US 2004-585971P
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                                                                          20040706
                                                 WO 2004-US25749
                                                                       W
                                                                          20040809
                           MARPAT 141:117192
OTHER SOURCE(S):
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GI

AB The invention provides cyclic peptides I [R1 = H, N(R6)(R7); R2, R3, R5 = H, C1-6 (un)branched alkyl, aromatic amino acid side chain moiety, with provisos; R4 = C1-6 (un)branched chain amino acid side chain, neutral H-bonding or pos. charged amino acid side chain moiety; R6 = H, C1-4 (un)branched alkyl, C1-4 aralkyl; C1-4 ω -amino derivative; R7 = H, (un)branched C1-7 alkyl, etc.; m = 1-4; p = 1-5 (m + p = 2-7)]. Further provided are compns. and methods for treatment of sexual dysfunction in mammals, including male sexual dysfunction, such as erectile dysfunction, and female sexual dysfunction, by administration of a cyclic peptide including a C-terminal hydroxyl group. Methods of administration include injection, oral, urethral, vaginal, nasal and mucosal administration. The peptides of the invention are functional melanocortin agonists.

L7 ANSWER 20 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:133079 CAPLUS

DOCUMENT NUMBER:

INVENTOR(S):

138:188071

TITLE:

Peptidomimetics of biologically active metallopeptides

Sharma, Shubh D.; Shi, Yiqun; Rajpurohit,

Ramesh; Wu, Zhijun

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

PCT Int. Appl., 168 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

8

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PAT	CENT	NO.			KIN	D :	DATE		APPLICATION NO.						. Di	ATE	
WO	2003	0135	71		A1		2003	0220	1	WO 2	002-1	US25	574		2	0020	 812
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		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
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														IT,			
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		•	•	TD,													
CA	2462	200			A1		2003	0220		CA 2	002-	2462	200		2	0020	812
EΡ	1425				A1			0609									
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									CÝ,	AL,	TR,	BG,	CZ,	EE,	SK		
JP	2005	5040	43		${f T}$		2005	0210		JP 2	003-	5185	77		2	0020	812
US	2004	1521	34		A1		2004	0805	1	US 2	004-	7618	89		2	0040	121
US	2004	1572	64		A1 20040812			0812	1	US 2	004-	7620	79		2	0040	121
US	2004	1672	01		A1	20040826			1	US 2	004-	7766	57		2	0040	210
US	2004	1715	20		A 1		20040902		1	US 2	004-	7764	19		2	0040	210
US	2005	1309	88		A1		2005	0616	US 2005-36282						2	0050	114

US 2005124636	A1	20050609	US	2005-40838		20050121
US 2005176728	A1	20050811	US	2005-99814		20050405
PRIORITY APPLN. INFO.:			US	2001-311404P	P	20010810
			WO	2002-US25574	W	20020812
		•	US	2003-467442P	P	20030501
			US	2003-474497P	P	20030530
•			US	2004-536606P	P	20040114
			US	2004-538100P	P	20040121
•			US	2004-761889	A2	20040121
		•	US	2004-762079	A2	20040121
•			US	2004-546393P	Р	20040219
			US	2004-559741P	P	20040405
			US	2004-563739P	P	20040419
			US	2004-837519	A2	20040430
OMITED COMPARIAN	MADDAG	1 1 2 0 1 0 0 0 7 1				

OTHER SOURCE(S):

MARPAT 138:188071

GΙ

$$H_{2N}$$

The invention relates to a method of deriving a peptidomimetic of a biol. active metallopeptide. The peptidomimetic contains at least one non-peptide ring structure and at least two amino acid-related elements. The invention further relates to peptidomimetics with a template space heterocyclic ring structure, including 5-, 6- and 8-membered and 5-5 and 6-5 bicyclic fused ring structure melanocortin receptor-specific peptidomimetics. The examples describe the synthesis of pyrrolidines, 2-piperazinones [e.g., I [R = BuCH2CH2CO-Ser(Bzl)-D-Phe(2-Cl)]], hexahydropyrrolo[1,2-a]pyrazin-4-ones, hexahydropyrrolo[1,2-a]imidazol-3-ones, 1,4-benzodiazepines, and piperazines. Competitive inhibition testing of compound I against α -MSH yielded the following results at 1 μ M: melanocortin-1 receptor (MC1-R) 96%, MC3-R 51%, MC4-R 99%, and MC5-R 82%.

I

REFERENCE COUNT:

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 21 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:58220 CAPLUS

DOCUMENT NUMBER:

138:117676

TITLE:

Linear and cyclic melanocortin

receptor-specific peptides, and therapeutic use

INVENTOR(S):

Sharma, Shubh D.; Shadiack, Annette M.;

Yang, Wei; Rajpurohit, Ramesh

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

SOURCE:

PCT Int. Appl., 55 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

ILLI ACC. NOM. COUNT:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	

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WO 2003006620
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
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                          A2
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                          A2
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                                            JP 2003-512379
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    US 2004138136
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                                20040715
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PRIORITY APPLN. INFO.:
                                            US 2001-304836P
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OTHER SOURCE(S):
                         MARPAT 138:117676
     Linear and cyclic peptides are provided which are specific to
     melanocortin receptors and which exhibit agonist, antagonist, or
     mixed agonist-antagonist activity. The peptides of the invention may be
     used to treat e.g. erectile dysfunction and eating disorders.
     ANSWER 22 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2003:634923 CAPLUS
TITLE:
                         Melanocortin-4 receptor selective small
                         molecules
AUTHOR(S):
                         Wu, Zhijun; Rajpurohit, Ramesh; Shi, Yiqun;
                         Sharma, Shubh
CORPORATE SOURCE:
                         Department of Chemistry, Palatin Technologies, Inc,
                         Cranbury, NJ, 08512, USA
SOURCE:
                         Abstracts of Papers, 226th ACS National Meeting, New
                         York, NY, United States, September 7-11, 2003 (2003),
                         MEDI-315. American Chemical Society: Washington, D.
                         CODEN: 69EKY9
DOCUMENT TYPE:
                         Conference; Meeting Abstract
LANGUAGE:
                         English
     The melanocortin-4 receptor is a drug target for developing
     therapeutics for various feeding disorders including obesity and cachexia.
     Various alpha-melanotropin (the endogenous 13 amino acid
     peptide) based ligands have been shown to modulate feeding behavior of
     rats under exptl. conditions. We have developed a series of
     tri-substituted oxopiperazine ring compds. [Fig. 1] as MC-4R selective
     small mol. agents. One of these agents, (2S)-1-(4-C1-D-Phe)-2-(3-C1-D-Phe)
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gaunidino-propyl)-3-oxo-4-naphthaleneethyl-piperazine, is an agonist with a Ki of 79 nM. SAR studies of affinity and receptor selectivity with a series of compds. with different R groups at the 4-position of the

oxopiperazine ring will be presented.

WO 2003006620

A2 ·

20030123

WO 2002-US22196

20020711

L7 ANSWER 23 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

STN

ACCESSION NUMBER: 2003:558167 BIOSIS DOCUMENT NUMBER: PREV200300559042

TITLE: Melanocortin-4 receptor selective small

molecules.

AUTHOR(S): Wu, Zhijun [Reprint Author]; Rajpurohit, Ramesh [Reprint

Author]; Shi, Yiqun [Reprint Author]; Sharma, Shubh

[Reprint Author]

CORPORATE SOURCE: Department of Chemistry, Palatin Technologies, Inc, 4C

Cedar Brook Drive, Cranbury, NJ, 08512, USA

zwu@palatin.com

SOURCE: Abstracts of Papers American Chemical Society, (2003) Vol.

226, No. 1-2, pp. MEDI 315. print.

Meeting Info.: 226th ACS (American Chemical Society)

National Meeting. New York, NY, USA. September 07-11, 2003.

American Chemical Society. ISSN: 0065-7727 (ISSN print).

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 26 Nov 2003

Last Updated on STN: 26 Nov 2003

L7 ANSWER 24 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:637788 CAPLUS

DOCUMENT NUMBER: 137:179841

TITLE: Identification of target-specific folding sites in

peptides and proteins

INVENTOR(S): Sharma, Shubh D.; Shi, Yi-Qun PATENT ASSIGNEE(S): Palatin Technologies, Inc., USA

SOURCE: PCT Int. Appl., 165 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

•	PAT	CENT :	NO.			KINI	D	DATE			APPL:	ICAT:	I NOI	.00		D	ATE	
		2002						2002 2003		,	WO 2	001-	JS50	075		2	0011	219
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	EP.	1379						2004										
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			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑL,	TR						
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	US	2004	2482	12		A1		2004	1209		US 2	004-	7696	95		2	0040	130
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											US 2	OUT-	32 I B.	35P		P 2	0011	UU4

WO 2001-US50075 W 20011219 US 2003-444129P P 20030131 US 2003-464117 A2 20030617 US 2004-769695 A2 20040130 US 2004-590933P P 20040723

The invention provides methods for identification and determination of AB target-specific folding sites in peptides and proteins, including a method for determining a secondary structure binding to a target of interest within a known parent polypeptide that binds to the target of interest. In one embodiment of the invention, a residue or mimetic containing a nitrogen atom and a sulfur atom available for binding to a metal ion is serially substituted for single residues in or inserted between two adjacent residues in a known primary sequence of a peptide or protein. resulting sequence, which includes a min. of the residue or mimetic containing a nitrogen atom and a sulfur atom available for binding to a metal ion and two residues on the amino terminus side thereof, is complexed with a metal ion, thereby forming a metallopeptide. The resulting metallopeptides are then used in binding or functional assays related to the target of interest, and the metallopeptide demonstrating binding or functional activity is selected. The invention further provides methods to determine the specific sequence and local three-dimensional structure of that portion of peptides or proteins that bind to a receptor or target of interest, or mediate a biol. activity of interest and methods to determine the pharmacophore of receptors or targets of interest. The invention provides for defined pharmacophores or receptors or targets of interest and directed libraries for identification and determination of target-specific folding sites in peptides

and proteins and for identification and determination of pharmacophores of receptors or targets of interest.

L7 ANSWER 25 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:637480 CAPLUS

DOCUMENT NUMBER:

137:190724

TITLE:

Melanocortin metallopeptides for treatment

of sexual dysfunction

INVENTOR(S):

Sharma, Shubh D.; Shi, Yi-qun; Yang, Wei;

Cai, Hui-zhi; Shadiack, Annette Palatin Technologies, Inc., USA

PATENT ASSIGNEE(S):

PCT Int. Appl., 58 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

	PA	CENT :	NO.	•		KIN	D	DATE			APPL	ICAT	ION I	NO.		D	ATE	
		2002						2002		,	WO 2	002-	US44	31		2	0020	213
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								MD,										
								SI,										
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		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	CH,
			CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,
			BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
	US	2004	0388	97		A1		2004	0226		US 2	003-	6407	55		2	0030	813
	US	2005	1649	14		A1		2005	0728		US 2	005-	3627	3		2	0050	114
PRI	ORIT	Y APP	LN.	INFO	.:						US 2	001-	2685	91P		P 2	0010	213
											us 1	995-	4766	52		A2 1	9950	607
									•		US 1	996-	6606	97		A3 1	9960	605

US 2000-483837 A2 20000117 WO 2002-US4431 A 20020213 US 2003-640755 A2 20030813 US 2004-536691P P 20040114

OTHER SOURCE(S): MARPAT 137:190724

Metallopeptides are provided for use in treatment of sexual dysfunction in mammals. The metallopeptides are agonists for at least one of melanocortin-3 or melanocortin-4 receptors. The metallopeptides are conformationally fixed on complexation of a metal ion-binding portion thereof with a metal ion. Also provided are metallopeptides that are antagonists for at least one of melanocortin-3 or melanocortin-4 receptors.

ANSWER 26 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:618187 CAPLUS

TITLE:

Conformationally-restricted N-alkylated amino acid analogs of MT-II to probe the message sequence of

 α - melanotropin

AUTHOR(S):

Yang, Wei Helen; Rajpurohit, Ramesh; Wang, Qing-Mei;

Sharma, Shubh

CORPORATE SOURCE:

Palatin Technologies, Inc, Edison, NJ, 08837, USA Abstracts of Papers, 224th ACS National Meeting,

SOURCE:

Boston, MA, United States, August 18-22, 2002 (2002), MEDI-336. American Chemical Society: Washington, D.

CODEN: 69CZPZ

DOCUMENT TYPE:

Conference; Meeting Abstract

LANGUAGE:

English

Ac-Nle-Cyclo[Asp-His-D-Phe-Arg-Trp-Lys]-NH2 (MT-II), is a potent non-selective cyclic peptide analog of α - melanotropin in which the tetrapeptide message segment, His-D-Phe-Arg-Trp, is constrained with an Asp Lys lactam bridge. It is evident that this mol. is capable of presenting itself in different conformational states that facilitate its interaction with various melanocortin receptors (MC-1R, MC-3R, MC-4R, and MC-5R) with similar low nanomolar affinities. We have explored the effects of addnl. conformational restrictions within this tetrapeptide sequence towards causing a shift in receptor selectivity. This was accomplished by introducing various N-alkylated derivs. of these amino acids in MT-II, individually as well as in tandem to restrict the phi conformational space around an amino acid. The results showed that D-Phe position was most sensitive for this modification. N-Methylation of D-Phe totally abolished the affinity for all of the four receptors. However, N-Ethylation caused a shift towards MC-1R selectivity, although with somewhat lower potency. N-Methylation at Arg or Trp residue was well tolerated and resulted in analogs displaying appreciable preference towards binding of MC-1R and MC-4R. These results that have provided important information on SAR for the design of receptor specific. peptidomimetics will be discussed.

L7 ANSWER 27 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

ACCESSION NUMBER:

2002:511102 BIOSIS

DOCUMENT NUMBER:

PREV200200511102

TITLE:

Conformationally restricted N-alkylated amino acid analogs

of MT-II to probe the message sequence of alpha-

melanotropin.

AUTHOR(S):

Yang, Wei Helen [Reprint author]; Rajpurohit, Ramesh [Reprint author]; Wang, Qing-Mei [Reprint author];

Sharma, Shubh [Reprint author]

CORPORATE SOURCE:

Palatin Technologies, Inc, 175 May Street, Suite 500,

Edison, NJ, 08837, USA

wyang@palatin.com

SOURCE:

Abstracts of Papers American Chemical Society, (2002) Vol.

224, No. 1-2, pp. MEDI 336. print.

Meeting Info.: 224th National Meeting of the American Chemical Society. Boston, MA, USA. August 18-22, 2002.

CODEN: ACSRAL. ISSN: 0065-7727.

DOCUMENT TYPE:

Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE:

English

ENTRY DATE:

Entered STN: 2 Oct 2002

Last Updated on STN: 2 Oct 2002

ANSWER 28 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:137478 CAPLUS

DOCUMENT NUMBER:

134:188233

TITLE:

Melanocortin metallopeptide constructs, combinatorial libraries, and applications Sharma, Shubh D.; Shi, Yi-Qun; Yang, Wei;

INVENTOR(S):

Cai, Hui-Zhi

PATENT ASSIGNEE(S):

Palatin Technologies, Inc., USA

PCT Int. Appl., 80 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

> APPLICATION NO. PATENT NO. KIND DATE ______ 20010222 WO 2001013112 A1 WO 2000-US16396

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,

ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,

CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2379647 20010222 CA 2000-2379647 20000615 Α1 EP 1208377 A1 20020529 EP 2000-944681 20000615

AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2004519410 Т 20040702 JP 2001-517163 20000615 US 7049398 20060523 US 2002-49718 B1 20020213 US 2006240481 20061026 US 2006-419557. A1 20060522

PRIORITY APPLN. INFO.:

US 1999-148994P P 19990812 WO 2000-US16396 W 20000615 US 2002-49718 A3 20020213

DATE

20000615

OTHER SOURCE(S):

MARPAT 134:188233

Metallopeptides and metallopeptide combinatorial libraries specific for melanocortin receptors are provided, for use in biol., pharmaceutical and related applications. The metallopeptides and combinatorial libraries are made of peptides, peptidomimetics and peptide-like constructs, in which the peptide, peptidomimetic or construct is conformationally fixed on complexation of a metal ion-binding portion thereof with a metal ion.

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

CAPLUS COPYRIGHT 2006 ACS on STN L7 ANSWER 29 OF 55

ACCESSION NUMBER:

2000:421334 CAPLUS

DOCUMENT NUMBER:

133:55661

TITLE:

Metallopeptide combinatorial libraries synthesis and

applications

INVENTOR (S'):

PATENT ASSIGNEE(S):

Sharma, Shubh D.; Shi, Yiqun Palatin Technologies, Inc., USA

SOURCE:

PCT Int. Appl., 55 pp.

DOCUMENT TYPE:

CODEN: PIXXD2

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.					KINI)	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
	WO	2000	0361	36		A1	_	2000	0622		wo 1	999-1	JS29	743		1	99912	214
		W: '	ΑE,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,
			CZ,	DE,	DK,	DM,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,
•			ΙŅ,	IS,	JP,	ΚE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,
			MG,	MK,	MN,	MW,	MX,	NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,
			SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZW		
		· RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SL,	SZ,	ΤZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,
			-									MC,	•		SE,	BF,	ВJ,	CF,
			CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG				
	CA	2353	072			A1		2000	0622		CA 1	999-	2353	072		1	99912	214
	ΕP	1141	375			A1		2001	1010		EP 1	999-	9642	63		1	99912	214
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI,	RO										
		2002		-				2002			JP 2	000-	5883	84		1	9991:	214
		7602									AU 2	000-	2054	1		1	9991:	214
	US	2002	0129	48		A 1		2002	0131		US 2	001-	8830	69		2	0010	614
	US	2006	0033	86		A 1		2006	0105		US 2	005-	2212	10		2	0050	907
PRIO	RITY	APP:	LN.	INFO	. :							998-					9981	
											US 1	995-	4766	52	· .	A 1	9950	607
											US 1	996-	6606	97	i	A 1	9960	605
									4		WO 1	.999-1	US29	743	1	W 1	9991:	214
							US 2	001-	8830	69	1	B3 2	0010	514				

AB Metallopeptide combinatorial libraries and methods of making libraries and metallopeptides are provided for use in biol., pharmaceutical and related applications. The combinatorial libraries are made of peptides, peptidomimetics and peptide-like constructs, and include a metal ion-binding region thereof which includes at least one orthogonal sulfur-protecting group, in which the peptide, peptidomimetic or construct is conformationally fixed on deprotection of the sulfur and complexation of the metal ion-binding region with a metal ion. Methods of synthesis of these metallopeptides are described. Thereafter the library members may be screened to select those with the desired specificity and affinity. REFERENCE COUNT: THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS

ANSWER 30 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2000:123168 CAPLUS

DOCUMENT NUMBER:

132:185495

TITLE:

Structurally determined metallo-constructs peptides as

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

imaging and diagnostic and radiotherapeutic agents

INVENTOR(S):

Sharma, Shubh D.

PATENT ASSIGNEE(S):

Rhomed Incorporated, USA

SOURCE:

U.S., 61 pp., Cont.-in-part of U.S. 5,891,418.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6027711	Α	20000222	US 1996-660697	19960605

(CA					A1	1996	1219	US 1995-476652 CA 1996-2221146 WO 1996-US9840						19960606			
		W:	AL,	AM,	ΑT,							, CA,						
												, KG,						
			LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX	, NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,
			SE,															
		RW:										, DE,					GB,	GR,
												, CF,			CM,	GΑ	•	
		96633				Α					ΑU	1996-	63300	0		1	9960	606
		7195						20000										
]	ΕP	83193										1996-					9960	
		R:			CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
_		0.500	IE,			_	•	1000										
		96094				A		1999				1996-					9960	
		20015		55				2001				1997-					9960	
		12239		2.2		A A1		20023				1996-						
		65515		22		B2		20030		,	US	1999-	3011.	13		Т	9990	330
		63312				B2		2003		1	ΙC	1999-	16131	50 .		1	99912	215
		20020		4.8		A1		2001				2001-						
		2002				A1		2002				2001 2003-						
		70978		- /		B2		2006		•		2000	5,040	12		4.	.00502	
		2005		14				20050		τ	US	2005-	3627	3		.2	0050	114
		20060		24		A1						2005-						
PRIOR	ITY	APPI	LN.									1995-					9950	
										Ţ	US	1996-	66069	97		A 1	9960	605
										- 1	ΟŴ	1996-	US984	40		W 1	9960	606
										Ţ	บร	1998-	7837	3 P		P 1	9980	318
												1998-					9981	
												1999-				A3 1	9990	830
												1999-					9991	
												2000-				A2 2	0000	
												2001-			•	P 2	0010	213
												2002-				AI 2	0020	213
										Į	US	2003-	6407	55			0030	
7 10	7		1		·····	د ماد د	: ~h	1				2004-			J E -		0040	

AB A metallo-construct, which may be a peptide, is provided for use as a biol., therapeutic, diagnostic imaging, or radiotherapeutic agent, and for use in library or combinatorial chemical methods. The construct has a conformationally constrained global secondary structure obtained upon complexing with a metal ion. The peptide constructs are of the type, RIXR2 (where X is a plurality of amino acids and includes a complexing backbone for complexing metal ions, resulting in a specific regional secondary structure forming a part of the global secondary structure; and where R1 and R2 each includes 0-20 amino acids, the amino acids being selected so that upon complexing the metal ion with X at least a portion of either R1 or R2 or both have a structure forming the balance of the conformationally constrained global secondary structure). All or a portion of the global secondary structure, which may be sychnol. or rhegnylogic, may form a ligand or mimic a known biol.-function domain. The construct has substantially higher affinity for its target upon labeling with a metal ion. D-Arg-Gly-D-Cys- β -Ala was prepared by standard methods and labeled with 99m Tc-sodium pertechnetate by using stannous salt as the reducing agent.

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 31 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1998:192146 CAPLUS

DOCUMENT NUMBER:

128:257693

TITLE:

Preparation of peptides having potent antagonist and agonist bioactivities at melanocortin

receptors

Hadley, Mac E.; Hruby, Victor J.; Sharma, Shubh INVENTOR(S):

D.

PATENT ASSIGNEE(S):

University of Arizona, Board of Regents, USA

SOURCE:

U.S., 6 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5731408	Α	19980324	US 1995-420972	19950410
US 6054556	Α	20000425	US 1997-980238	19971128
PRIORITY APPLN. INFO.:			US 1995-420972	A2 19950410
CT				

Ac-Nle-Asp-His-X-Arg-Trp-Lys-NH2 I

AΒ Cyclic lactam peptides I [X = D-3-(2-naphthyl)alanine (D-2-Nal),D-p-iodophenylalanine [D-(p-I)Phe]] provided potent and specific antagonists of the two neural melanocortin receptors and of the peripheral receptor. In particular, peptide I (X = D-2-Nal) was a potent antagonist of the MC3 and MC4 receptors with partial agonist activity, and a full agonist of the MC1 and MC5 receptors. Peptide I [X = D-(p-I)Phe] was a potent antagonist of the MC3 and MC4 receptors with partial agonist activity. Both peptides I have antagonist activities in the classical frog skin bioassay for pigmentation at the MC1 receptor.

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7ANSWER 32 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation DUPLICATE 1

ACCESSION NUMBER:

1998:262508 BIOSIS

DOCUMENT NUMBER:

PREV199800262508

TITLE:

Prevention of reflex natriuresis after acute unilateral

nephrectomy by melanocortin receptor antagonists.

AUTHOR(S):

Ni, Xi-Ping; Kesterson, Robert A.; Sharma, Shubh D.

; Hruby, Victor J.; Cone, Roger D.; Wiedemann, Eckehart;

Humphreys, Michael H. [Reprint author]

CORPORATE SOURCE:

Box 1341, San Francisco General Hosp., Univ. California,

San Francisco, CA 94143, USA

SOURCE:

American Journal of Physiology, (April, 1998) Vol. 274, No.

4 PART 2, pp. R931-R938. print. CODEN: AJPHAP. ISSN: 0002-9513.

DOCUMENT TYPE:

Article

LANGUAGE:

English

ENTRY DATE:

Entered STN: 9 Jun 1998

Last Updated on STN: 12 Aug 1998

gamma-Melanocyte-stimulating hormone (gamma-MSH), atrial natriuretic peptide (ANP), and oxytocin have been identified as candidate hormonal mediators of the reflex natriuresis that follows acute unilateral nephrectomy (AUN). Pharmacological characterization of the third melanocortin receptor (MC3-R) indicates that it uniquely responds to physiological concentrations of gamma-MSH. We tested the roles of gamma-MSH, ANP, and oxytocin in the postnephrectomy natriuresis by carrying out AUN during continuous intrarenal infusion of specific

antagonists for their cognate receptors. In anesthetized Sprague-Dawley rats, urinary sodium excretion (UNaV) increased from 0.34 +- 0.04 to 1.12 +- 0.11 mueq/min 90 min after AUN (P < 0.001). No change in UNaV occurred in rats undergoing a sham AUN procedure. Plasma immunoreactive gamma-MSH concentration was 53 +- 8 fmol/ml after sham AUN but 112 +- 17 fmol/ml after AUN (P < 0.01). SHU-9119 and SHU-9005 are substituted derivatives of alpha-MSH with potent antagonism at the MC3-R in vitro. Infusion of these compounds at 5 pmol/min completely blocked the natriuretic response to AUN despite a similar elevation in plasma gamma-MSH (111 +- 12 vs. 49 +- 8 fmol/ml in sham rats, P < 0.01). Intrarenal infusion of the ANP receptor antagonist A-71915 (5 pmol/min) or the oxytocin receptor antagonist (d(CH2)51, Tyr(Me)2,Orn8) vasotocin (10 pmol/min) effectively inhibited the natriuresis induced by intravenous infusion of ANP or oxytocin (each at 1 pmol/min), respectively, but did not block the natriuresis after AUN. Plasma immunoreactivity of these peptides was not increased after AUN. These results indicate that reflex natriuresis after AUN is accompanied by an increase in plasma gamma-MSH but not ANP or oxytocin concentration and is prevented by intrarenal infusion of receptor antagonists with selectivity for MC3-R. The data indicate that gamma-MSH or a closely related peptide mediates postnephrectomy natriuresis and provide further support for the possibility that gamma-MSH may play a wider role in sodium homeostasis.

L7 ANSWER 33 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:735794 CAPLUS

DOCUMENT NUMBER:

127:346663

TITLE:

Preparation and biological activity of cyclic bridged

 α -MSH analogs

INVENTOR(S):

Hadley, Mac E.; Hruby, Victor J.; Sharma, Shubh

D.

PATENT ASSIGNEE(S):

Competitive Technologies, Inc., USA

SOURCE:

U.S., 9 pp., Cont.-in-part of U.S. Ser. No. 199,775,

abandoned.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				-	
US: 5683981	Α	19971104	US 1995-470343		19950606
US 5674839	Α	19971007	US 1994-349902		19941206
US 5714576	Α	19980203	US 1997-826676		19970407
PRIORITY APPLN. INFO.:			US 1987-53229	В2	19870522
			US 1988-212807	В1	19880629
			US 1990-611456	В2	19901113
			US 1992-938781	В1	19920831
			US 1994-199775	В2	19940222
•			US 1992-916767	В1	19920717
			US 1994-349902	A3	19941206

Ac-[Nle⁴,AA⁵,D-Phe⁷,AA¹⁰]-R¹ I

___Xxx____ $Ac-[Nle^4,AA^5,D-Phe^7,AA^{11}]-R^2$

-Lys-Arg Ac-[Nle4,Glu5,D-Phe7,Lys11]-?-MSH1?13-NH2

Novel cyclic bridged α -MSH analogs I and II (AA5, AA10, AA11 = L- or D-amino acid containing ω-amino or carboxyl group in the side chain; Xxx = 1-5 α -amino acid residues, each of which may be of L- or D-configuration, or linear or branched spacer chain containing terminal amino and/or carboxy groups; R1, R2 designates α -MSH1-13NH2, α -MSH1-12NH2, α -MSH1-11NH2, α -MSH4-13NH2, $\alpha\text{-MSH}4\text{--}10\text{NH}2)$ are described herein. With the described analogs, when administered in pharmaceutical compns., it is now possible to achieve normalization of hypopigmentation dysfunctions and to achieve darkening of the skin in the total absence of sun or UV light irradiation Thus, cyclic peptide III was prepared by standard solid-phase methods and displayed $\alpha\text{-MSH}$ relative potencies of 100 in a frog skin assay and 5 in a lizard skin assay.

ANSWER 34 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on L7 STN

DUPLICATE 2

ACCESSION NUMBER:

1997:290902 BIOSIS

DOCUMENT NUMBER:

PREV199799590105

TITLE:

Biological and conformational examination of stereochemical

modifications using the template melanotropin

peptide, Ac-Nle-c(Asp-His-Phe-Arg-Trp-Ala-Lys)-NH-2, on

human melanocortin receptors.

AUTHOR(S):

Haskell-Luevano, Carrie; Nikiforovich, Gregory; Sharma, Shubh D.; Yang, Ying-Kui; Dickinson, Chris;

Hruby, Victor J. [Reprint author]; Gantz, Ira

CORPORATE SOURCE:

Dep. Chem., Univ. Arizona, Tucson, AZ 85721, USA

SOURCE:

Journal of Medicinal Chemistry, (1997) Vol. 40, No. 11, pp.

1738-1748.

CODEN: JMCMAR. ISSN: 0022-2623.

DOCUMENT TYPE:

Article

LANGUAGE:

English

ENTRY DATE:

Entered STN: 9 Jul 1997

Last Updated on STN: 9 Jul 1997

AB Examination of conformationally constrained melanotropin peptides (Ac-Nle-4-c(Asp-5-His-Phe-7-Arg-Trp-9-Ala-Lys)-NH-2) on four human melanotropin receptors (hMC1R, hMC3R, hMC4R, and hMC5R) resulted in identifying the importance of ligand stereochemistry at positions 5, 7, and 9 for agonist binding affinity and receptor selectivity. A trend in ligand structure-activity relationships emerged for these peptides, with the hMC1R and hMC4R possessing similar tendencies, as did the hMC3R and hMC5R. alpha-MSH (Ac-Ser-Tyr-Ser-Met-4-Glu-His-Phe-7-Arg-Trp-Gly-Lys-Pro-Val-NH-2), NDP-MSH (Ac-Ser-Tyr-Ser-Nle-4-Glu-HiS-D-Phe-7-Arg-Trp-Gly-Lys-Pro-Val-NH-2), and MTII (Ac-Nle-4-c(Asp-5, D-Phe-7-Lys-10)-alpha-MSH(4-10)-NH-2) were also examined at each of these melanocortin receptors. Interestingly, the linear NDP-MSH possessed greater binding affinity for the hMC3R and hMC5R than did the cyclic analogue MTII. The peptide Ac-Nle-c(Asp-His-Phe-Arq-D- Trp-9-Ala-Lys)-NH-2 demonstrated the greatest differentiation in binding affinity between the hMC1R and hMC4R (78-fold). Analogue Ac-Nle-c(Asp-His-Phe-7-Arg-Trp-Ala-Lys)-NH-2 resulted in micromolar binding affinity (or greater) at the hMC3R and hMC5R, demonstrating the importance of D-Phe-7 for ligand binding potency at these receptors. Ac-c(Asp-His-Phe-Arg-Trp-Ala-Lys)-NH-2 resulted in loss of binding affinity at the hMC5R, implicating the importance of Nle-4 (or a hydrophobic residue in this position) for binding to this receptor. Ac-Nle-c(D-Asp-5-His-Phe-Arg-Trp-Ala-Lys)-NH-2 was unable to competitively displace (125I)NDP-MSH binding at micromolar concentrations on the hMC3R and hMC5R, suggesting the importance of chirality of Asp-5 either for ligand-receptor interactions or for orientation of the side chain lactam bridge and the structural integrity of the peptide conformation. Energy calculations performed for these peptides resulted in the identification of a low-energy ligand conformer family that is common to all the ligands. The differences in ligand binding affinities observed in this study are postulated to be a result of different ligand-receptor complexed interactions and not solely to the ligand structure.

L7 ANSWER 35 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 3

ACCESSION NUMBER: 1997:513441 BIOSIS DOCUMENT NUMBER: PREV199799812644

TITLE: Selectivity of cyclic (D-Nal-7) and (D-Phe-7) substituted

MSH analogues for the melanocortin receptor

subtypes.

AUTHOR(S): Schioth, Helgi B. [Reprint author]; Muceniece, Ruta;

Mutulis, Felikss; Prusis, Peteris; Lindeberg, Gunnar; Sharma, Shubh D.; Hruby, Victor J.; Wikberg, Jarl

E. S. [Reprint author]

CORPORATE SOURCE: Dep. Pharmaceutical Pharmacol., Biomedical Cent., Box 591,

751 24 Uppsala, Sweden

SOURCE: Peptides (Tarrytown), (1997) Vol. 18, No. 7, pp. 1009-1013.

CODEN: PPTDD5. ISSN: 0196-9781.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 10 Dec 1997

Last Updated on STN: 10 Dec 1997

AB The binding of the 2 cyclic lactam MSH (4-10) analogues (MTII, SHU9119), and 5 cyclic (Cys-4, Cys-10)alpha-MSH analogues were tested on cells transiently expressing the human MC1, MC3, MC4 and MC5 receptors. The results indicate a differential importance of the C-terminal (Lys-Pro-Val) and N-terminal (Ser-Tyr-Ser) of cyclic (Cys-4, Cys-10)alpha-MSH analogues in binding to the MC receptor subtypes. Substitution of D-Phe-7 by D-Nal(2')-7 in both the cyclic lactam MSH (4-10) and the cyclic disulphide MSH (4-10) analogues resulted in a shift in favour of selectivity for the MC4 receptor; the disulphide analogue, (Cys-4, D-Na)(2')-7 Cys-10)alpha-MSH (4-10) (HS9510), showing the highest selectivity for the MC4 receptor among all the substances tested. However, the cyclic lactams displayed an over all higher affinity for the MC receptors, than any of the cyclic disulphide MSH (4-10) analogues.

L7 ANSWER 36 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 4

ACCESSION NUMBER: 1997:178769 BIOSIS DOCUMENT NUMBER: PREV199799470482

TITLE: Characterisation of D117A and H260A mutations in the

melanocortin 1 receptor.

AUTHOR(S): Schioth, Helgi B. [Reprint author]; Muceniece, Ruta;

Szardenings, Michael; Prusis, Peteris; Lindeberg, Gunnar;

Sharma, Shubh D.; Hruby, Victor J.; Wikberg, Jarl

E. S.

CORPORATE SOURCE: Dep. Pharmaceutical Pharmacol., Biomed. Center, Box 591,

751 24 Uppsala, Sweden

SOURCE: Molecular and Cellular Endocrinology, (1997) Vol. 126, No.

2, pp. 213-219.

CODEN: MCEND6. ISSN: 0303-7207.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 24 Apr 1997

Last Updated on STN: 2 Jun 1997

AB Recent site directed mutagenesis studies on the melanocortin 1 (MC1) receptor have indicated the importance of D117 and H260 amino acid residues for the binding of alpha-MSH (melanocyte stimulating hormone). Here, we report the testing of 12 cyclic and linear MSH peptides on the D117A and H260A mutant receptors. Moreover, we constructed a double mutant which displayed a major loss in affinity for (Nle-4, D-Phe-7) alpha-MSH. Our new data of His-6 and Phe-7 substituted MSH peptides are compared with previous results and the hypothesis of putative interactions of D117 and H260 with single amino acids in the MSH peptide. Our conclusions are that the D117A and the H260A mutations may cause conformational changes in the receptor which can not be linked to any specific amino acid in the MSH-peptides.

L7 ANSWER 37 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 5

ACCESSION NUMBER: 1997:22523 BIOSIS DOCUMENT NUMBER: PREV199799321726

TITLE: Melanotropic peptide-conjugated beads for

microscopic visualization and characterization of

melanoma melanotropin receptors.

AUTHOR(S): Sharma, Shubh D.; Jiang, Jinwen; Hadley, Mac E.;

Bentley, David L.; Hruby, Victor J. [Reprint author]

CORPORATE SOURCE: Dep. Chemistry, Arizona Res. Laboratories, Univ. Arizona,

Tucson, AZ 85721, USA

SOURCE: Proceedings of the National Academy of Sciences of the

United States of America, (1996) Vol. 93, No. 24, pp.

13715-13720.

CODEN: PNASA6. ISSN: 0027-8424.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 15 Jan 1997

Last Updated on STN: 23 Jan 1997

We developed two solid-phase reagent systems for microscopic visualization and characterization of melanocyte-stimulating hormone (MSH) receptors of melanoma cells. Multiple copies of (Nle-4, D-Phe-7) -alpha-MSH, a potent analog of alpha-MSH, were conjugated to microspheres (latex beads) or macrospheres (polyamide beads) through a thioether or disulfide bond. Binding between the beads and mouse and human melanoma cells was examined by scanning electron microscopy and by light microscopy. Each mouse and human melanoma cell (of all cell lines) evinced binding to the beads. Binding of the melanotropin conjugates was not restricted to any one phase of the cell cycle. Specificity of binding was demonstrated by several studies. Negative controls included cell types of nonmelanocyte origin (e.g., mammary cancer cells) and beads that lacked the melanotropic ligand or had other attached ligands. Beads with a disulfide-linked melanotropin analog served as a direct control. Treatment of these beads with DTT during or before incubation of the beads with melanoma cells (resulting in-release of the MSH analog from the beads) eliminated binding of the beads to melanoma cells. Binding interactions between melanoma cells and melanotropin-bound beads also could be abolished by prior incubation with unconjugated MSH analog. During these experiments, certain membrane receptor-hormone associated phenomena, such as capping (aggregation) of the receptor-ligand complex, also were observed. These

results provide visual evidence that MSH receptors are a property common to melanoma cells. Normal human epidermal melanocytes and keratinocytes were also shown to express melanotropin receptors by the same criteria established for melanoma cells.

L7 ANSWER 38 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

STN

ACCESSION NUMBER: 1996:460540 BIOSIS DOCUMENT NUMBER: PREV199699182896

TITLE: Melanocortin antagonists define two distinct

pathways of cardiovascular control by alpha- and gamma-

melanocyte-stimulating hormones.

AUTHOR(S): Li, Si-Jia; Varga, Karoly; Archer, Phillip; Hruby, Victor

J.; Sharma, Shubh D.; Kesterson, Robert A.; Cone,

Roger D.; Kunos, George [Reprint author]

CORPORATE SOURCE: Dep. Pharmacol. Toxicol., Virginia Commonwwealth Univ., Box

980613, Richmond, VA 23298, USA

SOURCE: Journal of Neuroscience, (1996) Vol. 16, No. 16, pp.

5182-5188.

CODEN: JNRSDS. ISSN: 0270-6474.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 11 Oct 1996

Last Updated on STN: 11 Oct 1996

AB Melanocortin peptides and at least two subtypes of melanocortin receptors (MC3-R and MC4-R) are present in brain

regions involved in cardiovascular regulation. In urethane-anesthetized rats, unilateral microinjection of alpha-melanocyte-stimulating hormone (MSH) into the medullary dorsal-vagal complex (DVC) causes

dose-dependent (125-250 pmol) hypotension and bradycardia, whereas y-MSH

is less effective. The effects of alpha-MSH are inhibited by microinjection to the same site of the novel MC4-R/MC3-R antagonist SHU9119 (2-100 pmol) but not naloxone (270 pmol), whereas the similar effects of intra-DVC injection of beta-endorphin (1 pmol) are inhibited by naloxone and not by SHU9119. Hypotensive and bradycardic responses to electrical stimulation of the arcuate nucleus also are inhibited by

ipsilateral intra-DVC microinjection of SHU9119. gamma-MSH and ACTH(4-10), but not alpha-MSH, elicit dose-dependent (0.1-12.5 nmol) pressor and tachycardic effects, which are much more pronounced after intracarotid than after intravenous administration. The effects of gamma-MSH (1.25

nmol) are not inhibited by the intracarotid injection of SHU9119 (1.25-12.5 nmol) or the novel MC3-R antagonist SHU9005 (1.25-12.5 nmol).

We conclude that the hypotension and bradycardia elicited by the release

of alpha-MSH from arcuate neurons is mediated by neural

melanocortin receptors (MC4-R/MC3-R) located in the DVC, whereas the similar effects of beta-endorphin, a peptide derived from the same precursor, are mediated by opiate receptors at the same site. In contrast, neither MC3-R nor MC4-R is involved in the centrally mediated pressor and tachycardic actions of gamma-MSH, which, likely, are mediated

by an as yet unidentified receptor.

L7 ANSWER 39 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:137750 CAPLUS

DOCUMENT NUMBER: 126:155849

TITLE: Melanotropic peptide receptors: membrane

markers of human melanoma cells

AUTHOR(S): Jiang, Jinwen; Sharma, Shubh D.; Fink, Jody

L.; Hadley, Mac E.; Hruby, Victor J.

CORPORATE SOURCE: Departments of Cell Biology & Anatomy, University of

Arizona, Tucson, AZ, 85724, USA

SOURCE: Experimental Dermatology (1996), 5(6), 325-333

CODEN: EXDEEY; ISSN: 0906-6705

PUBLISHER: Munksgaard

DOCUMENT TYPE: Journal LANGUAGE: English

The objectives of this research were to determine whether melanotropin receptors are characteristic (constant) membrane markers of human melanoma cells. Methodologies were developed to visualize these receptors by fluorescence microscopy. Multiple copies (10-20) of both [Nle4, D-Phe7] α -MSH, a superpotent analog of α -MSH (α -MSH), and a fluorophore, were conjugated to polyvinyl alc. (PVA). Incubation in the presence of the multivalent macromol. conjugate (FITC-PVA-MSH) resulted in binding of human epidermal melanocytes and keratinocytes and human melanoma cells (both melanotic and amelanotic) to the fluorescent conjugate. Binding of the conjugate to the cells exhibited a unique cluster pattern (capping) suggesting a receptor internalization related phenomenon. Most importantly, every cell of every melanoma cell line, melanotic or amelanotic, possessed receptors as visualized by fluorescence microscopy. Since the cells were not synchronized, some binding apparently took place during all phases of the cell cycle. Therefore, receptor expression appears not to be cell-cycle dependent. Specificity of binding of FITC-PVA-MSH was demonstrated by several studies. Binding of the conjugate to melanoma cells could be blocked by prior incubation of the cells in the presence of the unconjugated hormone analog; $[Nle4, D-Phe7]\alpha-MSH$. The macromol. conjugate lacking bound ligand (FITC-PVA) did not bind to the melanoma cells. Another peptide, a substance-P analog, attached to the substrate (FITC-PVA-SP) failed to bind to the cells. With the exception of keratinocytes, other cells of nonmelanocyte origin (e.g., fibroblasts, spleen, liver, kidney cells, and mammary cancer cells, lung cancer cells) did not bind to the conjugate. Thus, cell-specific melanotropin receptors appear to be characteristic cell surface markers of epidermal melanocytes, keratinocytes, and melanoma cells. In several human melanoma cell lines these receptors appeared to be functional since [Nle4,D-Phe7] α -MSH stimulated tyrosinase activity. Fluorescent melanotropin conjugates might prove useful in determining whether all human melanoma (primary and metastatic) tumors possess such receptors. These receptors might then provide targets for melanotropic peptides for the identification localization, and chemotherapy of melanoma.

L7 ANSWER 40 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 6

ACCESSION NUMBER: 1997:107433 BIOSIS DOCUMENT NUMBER: PREV199799406636

DOCUMENT NUMBER: PREV199799406636
TITLE: Human epidermal melanocyte a

TITLE: Human epidermal melanocyte and keratinocyte melanocortin receptors: Visualization by

melanotropic peptide conjugated microspheres (Latex

beads).

AUTHOR(S): Jiang, Jinwen; Sharma, Shubh D.; Hruby, Victor

J.; Bentley, David L.; Fink, Jody L.; Hadley, Mac E.

[Reprint author]

CORPORATE SOURCE: Dep. Cell Biol. Anatomy, Univ. Arizona, Tucson, AZ

85724-5044, USA

SOURCE: Pigment Cell Research, (1996) Vol. 9, No. 5, pp. 240-247.

CODEN: PCREEA. ISSN: 0893-5785.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 10 Mar 1997

Last Updated on STN: 10 Mar 1997

AB The objectives of this research were to determine whether melanocortin receptors are characteristic (constant) membrane markers of human epidermal melanocytes. Methodologies were developed to visualize melanotropin receptors by scanning electron microscopy (SEM). Multiple copies (up to a hundred) of

(Nle-4, D-Phe-7) alpha-MSH, a superpotent analog of alpha-melanocyte stimulating hormone (alpha-MSH), were conjugated to a macromolecular carrier (latex beads: microspheres). Incubation in the presence of the melanotropin-conjugated microspheres resulted in binding of human normal epidermal melanocytes to the beads. Almost every (possibly all) melanocyte possesses melanocortin receptors as visualized by SEM. Specificity of binding of the macromolecular conjugate was demonstrated by several studies: 1) Binding of melanocytes to the microspheres was specific since it could be blocked by prior incubation of the cells in the presence of the unconjugated hormone analog; 2) microspheres lacking bound ligand did not bind to the melanocytes; 3) microspheres that were first treated with reducing agents (e.g., dithiothreitol) did not subsequently bind to melanocytes; 4) another peptide hormone ligand (e.g., a substance-P analog) attached to the latex beads failed to bind to the cells; 5) B16/F10 mouse melanoma cells known to express melanocortin receptors bound to the microspheres; and 6) cells of nonmelanocyte origin (e.g., mammary cancer cells, small-cell lung cancer cells, fibroblasts) did not bind to the macromolecular conjugate. exception was that human epidermal keratinocytes also expressed melanocortin receptors as determined by all the criteria established above for epidermal melanocytes. Thus, cell specific melanocortin receptors appear to be characteristic cell surface markers of epidermal melanocytes and keratinocytes.

L7 ANSWER 41 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on DUPLICATE 7

ACCESSION NUMBER:

1997:105459 BIOSIS

DOCUMENT NUMBER:

PREV199799404662

TITLE:

Melanocortin receptors: Identification and

characterization by melanotropic peptide agonists

and antagonists.

AUTHOR(S):

Hadley, Mac E. [Reprint author]; Hruby, Victor J.; Jiang,

Jiwen; Sharma, Shubh D.; Fink, Jody L.;

Haskell-Luevano, Carrie; Bentley, David L.; Al-Obeidi,

Fahad; Sawyer, Tomi K.

CORPORATE SOURCE:

Cell Biol. Anatomy, Coll. Med., Tucson, AZ 85724-5044, USA

Pigment Cell Research, (1996) Vol. 9, No. 5, pp. 213-234. CODEN: PCREEA. ISSN: 0893-5785.

DOCUMENT TYPE:

General Review; (Literature Review)

LANGUAGE:

SOURCE:

English

ENTRY DATE:

Entered STN: 10 Mar 1997

Last Updated on STN: 10 Mar 1997

Hormones are chemical messengers released from cells to act on and control the activity of other cells. Hormonal ligands initiate their actions by interacting with receptive substances (Langley, 1906) of the target cells. These receptors are proteins that are either integral components of the cell membrane or are localized cytoplasmically within cells. Ligand-receptor interaction results in either the stimulation or inhibition of cellular activity. Since most hormones bind rather specifically to receptors possessed by their target cells, labeling of hormonal ligands can be utilized to identify and localize cells within an animal. In this report we discuss what is presently known about melanocortin receptors (MCRs) as studied by the use of labeled melanotropic peptide ligands.

L7 ANSWER 42 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 8

ACCESSION NUMBER:

1995:489989 BIOSIS PREV199598504289

DOCUMENT NUMBER:

Cyclic Lactam alpha-Melanotropin Analogues of

TITLE: Ac-Nle-4-cyclo(Asp-5, D-Phe-7, Lys-10) alphaMelanocyte-Stimulating Hormone-(4-10)-NH-2 with Bulky Aromatic Amino Acids at Position 7 Show High Antagonist Potency and Selectivity at Specific

Melanocortin Receptors.

AUTHOR(S): Hruby, Victor J. [Reprint author]; Lu, Dongsi; Sharma,

Shubh D.; Castrucci, Ana De L.; Kesterson, Robert A.; Al-Obeidi, Fahad A.; Hadley, Mac E.; Cone, Roger D.

CORPORATE SOURCE: Dep. Chem., Univ. Arizona, Tucson, AZ 85721, USA

SOURCE: Journal of Medicinal Chemistry, (1995) Vol. 38, No. 18, pp.

3454-3461.

CODEN: JMCMAR. ISSN: 0022-2623.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 9 Nov 1995

Last Updated on STN: 14 Dec 1995

AB The cloning of the melanocyte-stimulating hormone (MSH) and adrenocorticotropic hormone (ACTH) receptors (MC1-R and MC2-R, respectively) recently has led to the identification of three additional melanocortin receptors, MC3-R, MC4-R, and MC5-R. The MC2 receptor primarily recognizes only ACTH peptides, but the other four receptors all recognize alpha-melanocyte-stimulating hormone (alpha-MSH) and potent alpha-MSH agonists such as (Nle-4, D-Phe-7) alpha-MSH-NH-2 and Ac-Nle-4-c(Asp-5,D-Phe-7 Lys-10)alpha-MSH-(4-10)-NH-2 as well as ACTH. The absence of any known physiological role for these new receptors, expressed both in the brain (MC3-R and MC4-R) and throughout a number of peripheral tissues (MC5-R), has necessitated a search for potent and receptor selective-agonists and antagonists. We report here that analogues of the superpotent cyclic agonist analogue Ac-Nle-4-c(Asp-5,D-Phe-7, Lys-10) alpha-MSH-(4-10)-NH-2, in which a bulky aromatic amino acid is substituted in the 7-position, can produce potent and selective antagonists for melanocortin receptors. Thus, the D-p-iodophenylalanine-7-containing analogue Ac-Nle-4-c(Asp-5, D-Phe(pI)-7,Lys-10)alpha-MSH-(4-10)-NH-2 is a potent antagonist (pA-2 = 10.3) in the classical frog skin (Rana pipiens) assay (MC1-R), as is the D-2'-naphthylalanine-7 (D-Nal(2)-7)-containing analogue Ac-Nle-4-c(Asp-5,D-Nal(2)-7, Lys-10)alpha-MSH-(4-10)-NH-2 (pA-2 gt 10.3). Interestingly, the D-p-chloro- and D-p-fluorophenylalanine-7-containing analogues lacked antagonist activities at all melanotropin receptors, and both exhibited full agonist potency in the frog skin assay. The activity of these analogues also was examined at four mammalian melanocortin receptors. Interestingly, Ac-Nle-4-c(Asp-5, (D-Nal(2)-7, Lys-10) alpha-MSH-(4-10)-NH-2 was found to be a potent antagonist of the MC4-R (pA-2 = 9.3) with minimal agonist activity, a less potent antagonist of the MC3-R (pA-2 = 8.3) with minimal agonist activity, and a full agonist of the MC1 and MC5 receptors. Surprisingly, Nle-4-c(Asp-5,D-Phe(pI)-7, Lys-10) alpha-MSH was found to be a potent agonist at the cloned human MC1-R (EC-50 = 0.055 nM) and mouse MC1-R (EC-50 = 0.19 nM) but had potent antagonist activities at the human MC4-R (pA-2 = 9.7) and human MC3-R (pA-2 = 8.3) with significant partial agonist activities (EC-50 = 0.57 and 0.68 nM, respectively) as well. Thus, highly potent and receptor selective antagonist analogues can arise from substitution of the D-Phe-7 residue with a bulky aromatic amino acid. These analogues can be used to help determine the functional roles of these receptors.

L7 ANSWER 43 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 9

ACCESSION NUMBER: 1995:319499 BIOSIS DOCUMENT NUMBER: PREV199598333799

TITLE: Design, synthesis, biology, and conformations of bicyclic

alpha-melanotropin analogues.

AUTHOR(S): Haskell-Luevano, Carrie; Shenderovich, Mark D.;

Sharma, Shubh D.; Nikiforovich, Gregory V.; Hadley,

Mac E.; Hruby, Victor J. [Reprint author]

CORPORATE SOURCE: Dep. Chem., Univ. Ariz., Tucson, AZ 85721, USA

SOURCE: Journal of Medicinal Chemistry, (1995) Vol. 38, No. 10, pp.

1736-1750.

CODEN: JMCMAR. ISSN: 0022-2623.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 30 Jul 1995

Last Updated on STN: 30 Jul 1995

AB Seven side chain-constrained.bicyclic alpha-melanotropin (alpha-MSH) analogues were designed and synthesized, their conformations analyzed, and their biological properties examined in the frog skin and lizard skin bioassays. The structure of these analogues is based on the central sequence Ac-Cys-4-Xaa-5-His-6-DPhe-7-Arg-8-Trp-9-Cys-10-Lys-11-NH-2 (Xaa-5 = Asp or Glu) and has been extended on the N-terminal with the amino acids Ser-1-Tyr-2-Ser-3 and on the C-terminal with Pro-12-Val-13 to more closely resemble the native hormone alpha-MSH. The analogue Ac-Cys-4-Asp-5-His-6-DPhe-7-Arg-8-Trp-9-Lys-10-Cys-11-NH-2 also was synthesized, and its conformational and biological properties were examined. Design of these analogues was based upon the previously identified superpotent monocyclic peptides (Cys-4, DPhe-7, Cys-10) alpha-MSH(4-10)-NH-2 and (Nle-4,Asp-5,DPhe-7,Lys-10) alpha-MSH(4-10)-NH-2 with the rationale of increasing conformational constraints to restrict the available backbone conformations as a means to identify the conformations that facilitate biological activity. Computer-assisted conformational analysis of the central tetrapeptide residues 6-9 identified beta-turns which varied with respect to the residue in the i + 1 position. Each highly constrained peptide contains D-Phe-7 and a 23-membered ring which has previously been identified as crucial to produce prolonged acting peptides with superagonistic activities. The bicyclic peptides reported in this study are full agonists and are 25-400-fold less potent than alpha-MSH in the frog and lizard skin bioassays.

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DUPLICATE 10

ACCESSION NUMBER: 1996:110536 BIOSIS DOCUMENT NUMBER: PREV199698682671

The melanotropic peptide, (Nle-4, TITLE:

D-Phe-7) alpha-MSH, stimulates human melanoma

tyrosinase activity and inhibits cell proliferation.

Jiang, Jinwen; Sharma, Shubh D.; Nakamura, AUTHOR(S):

Shelley; Lai, Jeng-Yu; Fink, Jody L.; Hruby, Victor J.;

Hadley, Mac E. [Reprint author]

CORPORATE SOURCE: Cell Biol. Anatomy, Coll. Med., Univ. Arizona, Tucson, AZ

85724, USA

Pigment Cell Research, (1995) Vol. 8, No. 6, pp. 314-323. SOURCE:

CODEN: PCREEA. ISSN: 0893-5785.

DOCUMENT TYPE: Article LANGUAGE:

English

Entered STN: 12 Mar 1996 ENTRY DATE:

Last Updated on STN: 13 Mar 1996

Seventeen human melanoma cell (HMC) lines, both melanotic and amelanotic, were incubated in the continuous presence of a potent melanotropic peptide hormone analog, (Nle-4,D-Phe7)alpha-MSH, for 72 hr with daily changes of medium. Only one cell line (HD, melanotic) consistently responded to the hormone analog by increased tyrosinase activity. Three (one melanotic, two amelanotic) of the HMC lines also failed to respond to the peptide by either increased or decreased enzyme activity when incubated continuously in the presence of the peptide for longer periods of time (6,15,27,43 days). The HD cell line, however, again responded with increasingly enhanced basal enzyme activity the longer the cells were incubated in the presence of the melanotropin. One amelanotic cell line (C8161) responded with enhanced enzyme activity when grown to confluency in the

continuous presence of the peptide. Basal tyrosinase activity of the C8161 cell line may have increased as cell density in the flasks These results suggest that under conditions of increased cell number, phenotypic expression of tyrosinase activity in so called "amelanotic" (tyrosinase-negative) cells is increased and can be enhanced further by stimulation with a melanotropic peptide. Under conditions of increased cell number, the presence of (Nle-4,D-Phe-7)alpha-MSH caused morphological differentiation (shape change); the cells became enlarged and very dendritic. The number of cells in monolayer (surface of the flask) and in the medium were drastically reduced in both melanotic and "amelanotic" cell lines incubated with (Nle-4, D-Phe-7) alpha-MSH. The data support other published reports that melanotropic peptides inhibit human melanoma cell growth (proliferation) in vitro, most likely through a cytostatic mechanism. (Nle-4, D-Phe-7) alpha-MSH also exhibited a prolonged (residual) inhibitory action on HD cell proliferation. In other words, inhibition of cell growth (proliferation) of the HMCs was evident even several days after removal of the melanotropic peptide from the incubation medium.

L7 ANSWER 45 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 11

ACCESSION NUMBER: 1994:452483 BIOSIS DOCUMENT NUMBER: PREV199497465483

TITLE: Preformulation studies with melanotan-II: A

potential skin cancer chemopreventive peptide.

AUTHOR(S): Lan, En-Ling; Ugwu, Sydney O.; Blanchard, James [Reprint

author]; Fang, Xiaojun; Hruby, Victor J.; Sharma,

Shubh

CORPORATE SOURCE: Dep. Pharmaceutical Sci., Coll. Pharmacy, Univ. Ariz.,

Tucson, AZ 85121, USA

SOURCE: Journal of Pharmaceutical Sciences, (1994) Vol. 83, No. 8,

pp. 1081-1084.

CODEN: JPMSAE. ISSN: 0022-3549.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 24 Oct 1994

Last Updated on STN: 16 Dec 1994

Melanotan-II (1) is a cyclic heptapeptide analogue of alphamelanocyte-stimulating hormone (alpha-MSH) which tans the skin and is currently being evaluated for the prevention of sunlight-induced skin cancers. The dissociation constants of 1 were determined using potentiometric titration and ultraviolet spectrophotometry. The pK-al (histidine) and pK-a2 (arginine) were estimated to be 6.54 and 11.72, respectively. The apparent partition coefficient (PC) was measured at three pH values using both n-octanol and isooctane as the nonpolar phase. The PC(octanol) and DELTA-log PC at pH 7.35 were 2.82 and 1.05, respectively. These data, together with the observance of a bioavailability of 4.6% in the rat, indicate that 1 may be a suitable candidate for oral delivery. The data presented here are useful in developing an appropriate dosage form for 1.

ANSWER 46 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation L7 STN DUPLICATE 12

ACCESSION NUMBER: 1995:33242 BIOSIS DOCUMENT NUMBER: PREV199598047542

TITLE: Multivalent melanotropic Peptide and Fluorescent

> Macromolecular Conjugates: New Reagents for Characterization of Melanotropin Receptors.

AUTHOR(S): Sharma, Shubh D.; Granberry, Michael E.; Jiang,

Jinwen; Leong, Stanley P. L.; Hadley, Mac E.; Hruby, Victor

J. [Reprint author]

CORPORATE SOURCE: Dep. Chem., Univ. Arizona, Tucson, AZ 85721, USA

SOURCE: Bioconjugate Chemistry, (1994) Vol. 5, No. 6, pp. 591-601. CODEN: BCCHES. ISSN: 1043-1802.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 25 Jan 1995

Last Updated on STN: 26 Jan 1995

Radioreceptor binding studies have documented the presence of AB melanotropin receptors on some but not all of the various human melanoma cell lines that have been studied. Using a newly developed class of multivalent fluorescent melanotropin -macromolecular conjugates, we have demonstrated for the first time the presence of specific melanotropin receptors on all of the melanoma cell lines, both mouse and human, melanotic as well as amelanotic, that were investigated. The conjugates developed by us consisted of multiple copies of both a potent melanotropin analogue and a fluorophore, both arranged in a pendent fashion on a biologically inert macromolecule. While the multivalency of these conjugates may have established stronger binding with the melanotropin receptors on the cell surface (perhaps by establishing simultaneous multiple interactions), the presence of multiple copies of the fluorophore also greatly increased the level of detection in fluorescence labeling experiments. Membrane receptor-hormone-associated phenomena, such as capping and internalization of the receptor-ligand complex, also were observed. The details of these methods are described using B-16 mouse melanoma cells as a model system. demonstration of MSH receptors as a common marker for melanoma suggests that this methodology might be employed for early clinical detection and anatomical localization of melanoma- These results also offer the possibility that substitution of the fluorophore in these conjugates by a chemical agent of (chemo-)therapeutic relevance may provide a powerful tool for site specific (tumor) targeting and cytotoxicity.

L7 ANSWER 47 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

DUPLICATE 13

ACCESSION NUMBER: 1994:132615 BIOSIS DOCUMENT NUMBER: PREV199497145615

Kinetics of degradation of a cyclic lactam analog of alpha-TITLE:

melanotropin (MT-II) in aqueous solution.

AUTHOR(S): . Ugwu, Sydney O.; Lan, En-Ling; Sharma, Shubh;

Hruby, Victor; Blanchard, James [Reprint author] Dep. Pharmaceutical Sci., Coll. Pharm., Univ. Arizona,

CORPORATE SOURCE: Tucson, AZ 85721, USA

International Journal of Pharmaceutics (Amsterdam), (1994) SOURCE:

Vol. 102, No. 1-3, pp. 193-199. CODEN: IJPHDE. ISSN: 0378-5173.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 24 Mar 1994

Last Updated on STN: 24 Mar 1994

The kinetics of degradation of MT-II in aqueous buffered solution was studied in order to facilitate the formulation of a stable oral dosage form. A stability-indicating high-performance liquid chromatographic (HPLC) assay was used to measure the concentrations of MT-II remaining at various time periods. The rate of degradation of MT-II was studied as a function of pH, phosphate buffer concentration, temperature and ionic strength. Results indicated that the degradation of MT-II followed apparent first-order kinetics. The pH-rate profile showed that MT-II was most stable at approximately pH 5.0. Data obtained from this study also indicated that the degradation rate of this peptide was directly proportional to phosphate buffer concentration and temperature. shelf-life of MT-II in aqueous buffer solutions at 25 degree C was 27 h. The activation energy was 7.5 kcal/mol. The degradation rate of MT-II appeared to be independent of the ionic strength of the aqueous buffered

solution.

ANSWER 48 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

TN DUPLICATE 14

ACCESSION NUMBER: 1993:426424 BIOSIS DOCUMENT NUMBER: PREV199345074049

TITLE: Melanotropic peptides for therapeutic and

cosmetic tanning of the skin.

AUTHOR(S): Hadley, Mac E. [Reprint author]; Sharma, Shubh D.; Hruby, Victor J.; Levine, Norman; Dorr, Robert T.

CORPORATE SOURCE: Dep. Anat., Univ. Ariz., Tucson, AZ 85724, USA

SOURCE: Vaudry, H. [Editor]; Eberle, A. N. [Editor]. Ann. N. Y.

Acad. Sci., (1993) pp. 424-439. Annals of the New York

Academy of Sciences; The melanotropic peptides.

Publisher: New York Academy of Sciences, 2 East 63rd Street, New York, New York 10021, USA. Series: Annals of

the New York Academy of Sciences.

Meeting Info.: Conference. Rouen, France. September 6-9,

1992.

CODEN: ANYAA9. ISSN: 0077-8923. ISBN: 0-89766-782-4

(paper), 0-89766-781-6 (cloth).

DOCUMENT TYPE: Article

Conference; (Meeting)

LANGUAGE:

English

ENTRY DATE: Entered STN: 15 Sep 1993

Last Updated on STN: 15 Sep 1993

L7 ANSWER 49 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:401389 CAPLUS

DOCUMENT NUMBER: 121:1389

TITLE: Melanotropic peptides and melanoma

cell receptors

AUTHOR(S): Jiang, Jin-wen; Nakamura, Shelley; Sharma, Shubh

D.; Hruby, Victor J.; Hadley, Mac E.

CORPORATE SOURCE: Coll. Med., Univ. Ariz., Tucson, AZ, 85724, USA

SOURCE: Pept.: Biol. Chem., Proc. Chin. Pept. Symp. (1993), Meeting Date 1992, 143-4. Editor(s): Du, Yu-cang;

Tam, James P.; Zhang, You-shang. ESCOM: Leiden, Neth.

CODEN: 59YOAI

DOCUMENT TYPE: Conference LANGUAGE: English

AB A MSH analog attached to polyvinyl alc. through a disulfide linkage was

used to demonstrate the presence of melanotropin receptors in various melanoma cell lines. The MSH conjugate bound to all mouse and human melanoma cells, but not to MCF-7 or to normal

mouse spleen and liver cells.

L7 ANSWER 50 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:622219 CAPLUS

DOCUMENT NUMBER: 121:222219

TITLE: A new class of positively charged melanotropin

analogs: a new concept in peptide design

AUTHOR(S): Sharma, Shubh D.; Nikiforovich, Gregory V.;

Jiang, Jinwen; Castrucci, Ana M. L.; Hadley, Mac E.;

Hruby, Victor J.

CORPORATE SOURCE: Department of Chemistry, University of Arizona,

Tucson, AZ, 85721, USA

SOURCE: Pept. 1992, Proc. Eur. Pept. Symp., 22nd (1993),

Meeting Date 1992, 95-6. Editor(s): Schneider, Conrad

H.; Eberle, Alex N. ESCOM: Leiden, Neth.

CODEN: 60LUAN

DOCUMENT TYPE: Conference LANGUAGE: English

Comparative potencies relative to α - melanotropin in the AB frog and lizard skin assays were measured for 4 α -MSH1-13-NH2 analogs with increased overall pos. charges on the mols. Introduction of basic residues in a biocompatible fashion can further modulate and enhance the biol. profile.

ANSWER 51 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN L7

ACCESSION NUMBER: 1994:473927 CAPLUS

DOCUMENT NUMBER: 121:73927

TITLE: Melanotropic peptides for the

identification, localization (imaging) and

chemotherapy of melanoma

Hadley, Mac E.; Sharma, Shubh D.; Hruby, AUTHOR(S):

Victor J.

Dep. Anat., Univ. Ariz., Tucson, AZ, 85721, USA CORPORATE SOURCE:

SOURCE: Pept.: Biol. Chem., Proc. Chin. Pept. Symp. (1993),

Meeting Date 1992, 53-6. Editor(s): Du, Yu-cang; Tam,

James P.; Zhang, You-shang. ESCOM: Leiden, Neth.

CODEN: 59YOAI

Conference; General Review DOCUMENT TYPE:

LANGUAGE: English

A review, with 14 refs., on the design of $\alpha\text{-MSH}$ peptides for melanoma chemotherapy, fluorescent MSH analogs for receptor

identification and visualization, radiolabeled MSH analogs, MSH peptides

for protection against skin cancer, and MSH delivery.

L7 ANSWER 52 OF 55 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation

DUPLICATE 15 STN

1993:426398 BIOSIS ACCESSION NUMBER: DOCUMENT NUMBER: PREV199345074023

Design, synthesis, and conformation of superpotent and TITLE:

prolonged acting melanotropins.

AUTHOR(S): Hruby, Victor J. [Reprint author]; Sharma, Shubh D.

; Toth, Katalan; Jaw, John Y.; Al-Obeidi, Fahad; Sawyer,

Tomi K.; Hadley, Mac E.

CORPORATE SOURCE: Dep. Chem., Univ. Ariz., Tucson, AZ 85721, USA

Vaudry, H. [Editor]; Eberle, A. N. [Editor]. Ann. N. Y. SOURCE:

Acad. Sci., (1993) pp. 51-63. Annals of the New York

Academy of Sciences; The melanotropic peptides.

Publisher: New York Academy of Sciences, 2 East 63rd Street, New York, New York 10021, USA. Series: Annals of

the New York Academy of Sciences.

Meeting Info.: Conference. Rouen, France. September 6-9,

1992.

CODEN: ANYAA9. ISSN: 0077-8923. ISBN: 0-89766-782-4

(paper), 0-89766-781-6 (cloth).

DOCUMENT TYPE: Article

Conference; (Meeting)

LANGUAGE:

English

ENTRY DATE:

Entered STN: 15 Sep 1993

Last Updated on STN: 15 Sep 1993

ANSWER 53 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN L7

1992:551354 CAPLUS ACCESSION NUMBER:

117:151354 DOCUMENT NUMBER:

TITLE: Multivalent ligands for diagnosis and therapeutics

AUTHOR(S):Sharma, Shubh D.; Hruby, Victor J.; Hadley,

Mac E.; Granberry, Michael E.; Leong, Stanley P. L.

CORPORATE SOURCE: Dep. Chem., Univ. Arizona, Tucson, AZ, 85721, USA

SOURCE: Pept.: Chem. Biol., Proc. Am. Pept. Symp., 12th (1992)

), Meeting Date 1991, 599-600. Editor(s): Smith, John A.; Rivier, Jean E.

ESCOM: Leiden, Neth.

CODEN: 57XGA9

DOCUMENT TYPE: Conference LANGUAGE: English

A report from a symposium on the preparation of fluorescent melanotropin-polymer conjugates and their binding with a variety of cultured melanoma cells.

ANSWER 54 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN L7

ACCESSION NUMBER: 1992:524732 CAPLUS

DOCUMENT NUMBER: 117:124732

Design of different conformational isomers of the same TITLE:

peptide: α - melanotropin

Nikiforovich, Gregory V.; Sharma, Shubh D.; AUTHOR(S):

Hadley, Mac E.; Hruby, Victor J.

Dep. Chem., Univ. Arizona, Tucson, AZ, 85721, USA CORPORATE SOURCE:

Pept.: Chem. Biol., Proc. Am. Pept. Symp., 12th (1992) SOURCE:

), Meeting Date 1991, 389-92. Editor(s): Smith, John A.; Rivier, Jean E.

ESCOM: Leiden, Neth.

CODEN: 57XGA9

DOCUMENT TYPE:

Conference

LANGUAGE: English

Cyclic analogs of an α -MSH fragment were examined for their biol. potencies and conformations. All analogs displayed full biol. responses, indicating that they were all capable of assuming the conformation involved in the transduction step. Differences in potencies reflected differences in ability to assume the conformation associated with receptor recognition and binding steps.

ANSWER 55 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1991:185974 CAPLUS

DOCUMENT NUMBER:

114:185974

TITLE:

SOURCE:

Antisense peptides of melanocyte-stimulating

hormone (MSH): surprising results

AUTHOR(S):

Al-Obeidi, Fahad A.; Hruby, Victor J.; Sharma, Shubh D.; Hadley, Mac E.; Castrucci, Ana M. De L.

CORPORATE SOURCE:

Dep. Chem., Univ. Arizona, Tucson, AZ, 85721, USA Pept.: Chem., Struct. Biol., Proc. Am. Pept. Symp.,

11th (1990), Meeting Date 1989, 530-2. Editor(s): Rivier, Jean E.; Marshall, Garland R. ESCOM Sci.

Pub.: Leiden, Neth.

CODEN: 56XTA7

DOCUMENT TYPE:

Conference

LANGUAGE:

English

A symposium report on the design and solid-phase synthesis of 8 antisense peptides related to β -MSH and 2 related to α -MSH. Antisense peptides are encoded by mRNA complementary to the mRNA for a specific peptide hormone. Melanotropic activities are given for the above antisense peptides.

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L28 L1 SAM SSS

L3124 L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 18:16:31 ON 22 DEC 2006

L4

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 18:19:57 ON 22 DEC 2006

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E SHUBH S?/AU
E SHARMA SHUBH2/AU

E SHARMA SHUBH?/AU

L5 130 E1-E8

L6 70 MELAN? AND L5

L7 55 DUP REM L6 (15 DUPLICATES REMOVED)

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